THE

MEDICAL AND SURGICAL REPORTER.

No. 1522.] PHILADELPHIA, MAY 1, 1886. [Vol. LIV.—No. 18.

ORIGINAL DEPARTMENT.

LECTURE.

SOME POINTS ON THE HEALING OF WOUNDS.*

BY J. S. WIGHT, M. D.,

Professor of Operative and Clinical Surgery at the Long Island College (Brooklyn) Hospital.

GENTLEMEN: The cases which I have shown you to-day illustrate the healing of wounds—a subject always of interest to the surgeon. In the spirit that does not affirm by any master, and that does not fear the dictations of any self-constituted authority, let me bring to your attention some points of importance on the healing of wounds. But in the first place, let me say to you that the process by which wounded surfaces grow together is the healing process. And it is to this process that I invite your attention. This process has interested surgeons for all time, and it ought to interest you, who are just beginning to lay the foundations of your profession.

At the basis of this subject lie some important principles that must be understood before we can comprehend the subject itself. As we have already seen, the healing of a wound means that the several parts grow together; so that we are dealing with the subject of growth in so far as it relates to the question of repair. And we may briefly here state that the process of repair consists in the orderly proliferation of cells, which, when young and active, form granulation tissue, and which, when old and firm, form scar tissue. And this process is, after all, the substance of the healing of wounds. Now, there is another principle of vital importance involved in the healing process: *When nature sets about a piece of work, it supplies an abundance of material.* This is the rule. Sometimes there is failure. Such is the case if there is not enough material. In the great majority of cases in which wounds are to be repaired, or healed, a considerable quantity of material is supplied that is not used. I could give you many significant illustrations of this important principle in other departments of knowledge. You will do well to grasp and hold this principle, for it has important practical bearings.

In the next place, let us try to understand the steps of the process of healing. The cells of the connective tissue of the wound-surface are irritated; they proliferate, forming new cells; these new cells grow together and make scar-tissue; and this scar-tissue is the bond of union between the tissues that have been severed by the wounding instrument. It is not my object now to raise the question of the proliferation of the wandering cells. My simple proposition is that the wounded surfaces grow together. And this growing together is the substance of all kinds of union; and hence, as a matter of fact, there is only one kind of union, and that is union by scar-tissue.

Now what is the nature of the differences in the process of union? It is only one of time and degree. If the surfaces of wounds grow together in a short time with slight proliferation, we call the process primary union. If the cavity of a wound is allowed to fill up with granulations, taking considerable time and being accompanied by considerable proliferation, we call the process healing by granulation. If we bring together

*From a clinical lecture, for the MEDICAL AND SURGICAL REPORTER.

two granulating surfaces, so that the new cells can form scar-tissue in a short time and with but little further proliferation, we call this process secondary union. In any event we obtain union—which means that the surfaces of the wound have grown together by means of scar-tissue.

What is the one leading and elementary process going on in the surfaces of a wound? Have we not already said that it is the proliferation of cells? And have we not intimated that this proliferation is generally going on abundantly? And the surgeon expects that this proliferation will eventuate in the formation of scar-tissue. Does this always happen in the same way? Let me illustrate: A man has his foot crushed, as well as the lower part of his leg. The surgeon amputates the patient's leg in the middle third. The tissues appear healthy. In a few days excessive proliferation takes place. The flaps are separated; parts of them mortify, and abscesses form in the perijacent tissues. What has happened? The amputation may have been through tissues so much injured that they had not the power to proliferate in the normal way. There may have been the effusion of blood between the surfaces of the amputation wound. The blood-vessels of the flaps may contain an excessive quantity of coagulated blood. The perivascular spaces may be largely distended with serum. The dressings may have been so applied as to damage tissues that have been already greatly and seriously injured. *Infecting germs may have found their way to the wound surfaces. They may have proliferated, producing septic suppuration.* And this process of septic suppuration is a form of proliferation.

The great practical questions are these: How to promote the normal proliferation that eventuates in scar-tissue; how to prevent the action of those agents that interfere with this normal proliferation. For he who can make or induce scar-tissue to grow in the least possible time and with the least necessary proliferation, is no doubt the best surgeon.

How often have I seen an amputation through damaged tissues, performed with all the appliances of modern antiseptic surgery, followed by excessive proliferation, suppuration, and local mortification! And more than once in case of a crushing injury of the leg have I amputated at the knee-joint, and obtained primary union of the flaps. Now, what is the point at issue? Is it not the integrity of the cells—the cells in the continuity of the wounded surfaces? Can you compel the man with fever to climb the mountain height? Can the man with broken leg engage in pedestrian contests? Can sick and damaged cells perform the legitimate work of repair?

I once amputated the leg at the junction of the lower and middle thirds, and after securing the posterior tibial and peroneal arteries, then searched long and faithfully for the anterior tibial artery without success. When several hours had elapsed, I found the flaps distended with blood. I opened them, removed the blood, and found a small artery in an abnormal location. When this artery was tied, I sutured the flaps again, but they united in a short time by granulation. This case illustrates the importance of arresting the flow of blood.

Now, what are the precepts that we should follow? Tie the main blood vessels, as well as the muscular branches. In this work I give the preference to absorbable ligatures. And it is important to separate and pull out the artery for ligation. But how shall we arrest the oozing from the wound-surface? Two points are involved: The small blood-vessels contract and retract, and thus diminish the oozing; the thin layer of blood on the surface of the wound, in a little time coagulates, and produces contraction. I often find this point illustrated, when the blood of my patient remains on my hands for a few minutes. But then this oozing, especially after the use of the elastic bandage, does not always diminish rapidly and completely. So it is left for us to imitate the natural process—just as we do in the management of arterial hemorrhage: we apply hot water alone, or containing some astringent or antiseptic. I have often applied with a sponge both hot water and equal parts of carbolic acid and glycerine: first the carbolized glycerine, and then the water too hot for the surgeon's hand to bear with comfort. The more or less continued irrigation of the wounded surfaces—during an operation—with a warm solution of mercuric chloride will generally act promptly in arresting the oozing of blood; the strength of the solution, one to a thousand. And it is worthy of mention, that we sometimes apply the actual cautery, the electro-cautery, or the thermo-cautery, to arrest oozing, deeming the cauterized tissue more favorable to union than effused blood.

(*To be continued*).

—A porous plaster has been boycotted in Newark. The manufacturer should clap one to his backbone and stick it out.

COMMUNICATIONS.

THE VALUE OF BINIODIDE OF MERCURY AS AN ANTISEPTIC IN OBSTETRICS.—SECOND PAPER.*

BY EUGENE P. BERNARDY, M. D.

Of Philadelphia.

At a meeting held June 4, 1885, I had the pleasure of reading before this Society a paper on the "Value of Biniodide of Mercury as an Antiseptic in Obstetrics." It was with hesitancy that I brought forward the claims of a new agent whose properties were at that time comparatively unknown. My only knowledge of its effects was that which I had derived from reading the experiments of Dr. Miquel, of France, and from my experience in three cases. To-night I again bring it to your notice, not as an unknown and untried antiseptic, but as one which has proved itself far superior to any of this class of preparations which I have thus far used in obstetric practice.

Since writing my first paper, I have learned that the biniodide of mercury has been used for the past year in preference to all other antiseptics at the Lariboisière Maternité of Paris, and the reports of the results obtained have likewise been highly favorable.

In a letter written by Dr. Thomas Linn, from Paris, France, to the *Philadelphia Med. Times* (March 6, 1886), referring to the subject of antisepsis, the following passage occurs:

"Professor Panas has again something to say about antisepsis in eye surgery, principally in the treatment of cataract. The principles that guide him are, first, to make use of an antiseptic that is *sure* and *not irritating* in its action . . . Of all the antiseptics which he has used during the last two years, Dr. Panas has now definitely adopted a solution of the biniodide of mercury in 20 to 1000 ($\frac{1}{20}$ to 1000?).† Even in 40 to 1000 ($\frac{1}{40}$ to 1000?), this salt possesses a very strong anti-fermentative power, so that at double the strength nothing should resist it . . . As to the other antiseptics used: boric acid is not irritating, but its antiseptic power is doubtful; the bichloride of mercury is more irritating than the biniodide, and its antiseptic power is not half so great."

These remarks fully substantiate the opinion expressed in my former paper, that "I considered the biniodide of mercury far superior to the bichloride of mercury as an antiseptic." Of course, the cases of Dr. Panas belong to eye-surgery; but still the experiments made in both classes of cases led to the same conclusions.

I have here the history of eight other cases in which I found it necessary to use the biniodide. I have perhaps given a fuller detail of circumstances than may appear necessary. If I have so erred, I have done it for the purpose of fully and clearly showing under what conditions the antiseptic was used.

It will be observed how readily offensive odors disappeared after only a few injections of the biniodide. In some of the cases the odor around the patient was perfectly horrible.

Case 1. On September 9, 1885, I was requested to attend Mrs. F., residing at Fifty-fifth and Vine streets, in her fifth confinement. Her previous labors had taken place in Belgium, and had always been terminated by the forceps; only two children being born alive. The first and third lyings-in were complicated by attacks of puerperal fever.

I arrived about 2 p. m. Found the patient had been in labor since the previous evening (8 p. m.). On examination, found the os completely dilated, head presenting; while to the left I felt what seemed to be a prolapsed cord. The head seemed jammed between the promontory of the sacrum and the pubes. I ruptured the bag of waters so I could make a more decisive examination. Down came a loop of non-pulsating cord, which proved to be irreducible on account of the position of the head. The presentation was now made out to be a partial brow; an antero-posterior contraction existed; the promontory of the sacrum caught the side of the head and pinned it in position. I attempted to push the head up, but soon found it could not be done. I then attempted to produce flexion, but failed. Wallace's forceps met with similar results; on account of the unnatural position of the head, the forceps constantly slipped. By this time I was completely exhausted. I gave one-half grain of morphiæ sulph., which would insure the patient needed rest, as her pains had all along been active.

On my return at 5 p. m., found the condition of things the same. Dr. A. E. Roussel, who came with me, etherized the patient. I again attempted to change the position of the head, but failed. Pagot's long forceps were applied, but on the slightest traction they would slip. Tarnier's forceps seemed

*Read before the Obstetrical Society of Philadelphia, April 1, 1886.

†Evidently an error in proportion, as in the formula given, it is 1-20 gramme to the litre, or 1 to 20,000.

to grasp the head in a firmer manner, but they finally gave way. I had now worked continuously for two hours. Seeing there was no other resource, I perforated the head, and within twenty minutes the child was extracted, which weighed, without the brains, fifteen and one-half pounds.

The patient was living on the second floor, in a room partitioned off the main room of a factory. The room was well located and freely supplied with fresh air; her husband was the nurse. The next day found the pulse 100, temperature 101°; extreme tenderness over the abdomen, especially over the region of the uterus. I washed out the uterus with the $\frac{1}{15000}$ solution of the biniodide of mercury, and left orders to have it done four times a day. The second visit found the patient free from pain; pulse 80, temperature 98⅘°. Convalescence went straight on as in a normal labor. On the fourth day there was considerable pain over the uterus. Towards evening, while washing out the vagina, a clot of blood about the size of a pigeon's egg was expelled, perfectly free from odor. The patient was up on the eighth day.

Case 2. Was called (October 5, 1885,) to attend Mrs. Mc., age 30, third confinement. After an easy labor, she was delivered of twins. The placenta came away naturally, and everything went well up to the evening of the sixth day, when she became suddenly feverish and thirsty. The vaginal discharges became highly offensive, so much so that the windows had to be constantly kept opened. I immediately ordered injections (hot) of the $\frac{1}{10000}$ solution of the biniodide of mercury, asking the patient to note particularly when the odor disappeared. The first injection was followed by no effect; but on the second injection being made, the odor disappeared and remained so during convalescence. Discharged on the tenth day, well.

Case 3. On the morning of October 7, 1885, I was called to attend Mrs. B., age 28, sixth confinement. About a month previously she had called at my office, and I had given my opinion that the child she was carrying was undoubtedly dead, and that she was likely to fall in labor at any time. On my arrival at the house, found, after examination, the os perfectly dilated, and the bag of waters protruding between the vulvæ. Ruptured the bag of waters, and of all stenches, I never smelled the like. The windows had to be thrown open. On pushing my examination, found a small hydrocephalic child descending. Labor was lingering, but finally the child (in a putrid condition) was expelled naturally. The placenta came away without any trouble.

I ordered the patient to be washed out with $\frac{1}{10000}$ solution of the biniodide of mercury four times a day. The first injection I administered myself. The second and third injections were followed by a slight stinging sensation, which I believe came from using water which was too hot; but, to make certain, I reduced the biniodide to the $\frac{1}{20000}$. Within two days the discharges became perfectly odorless. Each injection was followed by a feeling of ease and comfort. Discharged well on the ninth day.

Case 4. On October 23, 1885, I was requested to attend Mrs. R. in her fourth confinement. Her third lying-in had been followed by a severe attack of puerperal fever. Upon examination, found the os rigid, dilated about an inch; waters ruptured; vertex presentation, right occipito-posterior position. Labor was lingering, os remaining somewhat rigid. About 9 p. m., finding that no headway had been made, and the patient by this time commenced showing symptoms of exhaustion, she was then fully etherized. I then applied Wallace's forceps and delivered her of a living child; no laceration. The next day she complained of pain over the region of the uterus. Ordered one-eighth grain morphiæ sulph. in tablespoonful of camphor-water every two hours. On my next visit found the tenderness had increased and the discharges from the vagina were becoming offensive. Ordered hot injections of the $\frac{1}{10000}$ solution biniodide of mercury. The following day the discharges were free from odor, the tenderness of the uterus abated. Discharged well on the fourteenth day.

Case 5. On the morning of November 3, 1885, I was asked to see Mrs. C.; first confinement. In this patient a year previously I had dilated a constricted os. Pregnancy was ushered in with marked kidney trouble; the urine yielded over thirty per cent. of albumen. The patient was enormously swollen from dropsical effusion. The case from the start was not a promising one. On arriving at the house, found the patient very nervous; on examination, found the os slightly rigid, but dilating, the waters ruptured; labor dragged on slowly all day, with very little advance. Towards twelve, midnight, she suddenly went into a spasm; I immediately etherized her; by the time she was completely etherized, Dr. Curtin, whom I had sent for, arrived. On examination the os was found dilated, slightly rigid; the ether was pushed, with the effect of softening the os. I then applied Simpson's forceps, but

they would not hold; Wallace's long forceps were applied, and in a short time the patient was delivered of a fine bouncing boy; no laceration.

The next visit found the patient doing well; pulse about 80, temperature normal. On my second visit the temperature was 102°, pulse 120–130, great fever, excessive tenderness of the uterus, the discharges very offensive. This sudden change was caused by the stupidity and incompetency of the nurse, The nurse being discharged, the mother of the patient undertook to nurse her. I immediately ordered hot injections of $\frac{1}{4000}$ solution of biniodide of mercury. The second injection the odor disappeared, but in this case did not remain away; I believe it was on account of not having a competent person to use the injections. Even as imperfectly as my orders were carried out, the biniodide held the odor under control, as the discharges were never as offensive as before its use. The patient was discharged well on the fifteenth day.

Case 6. On November 11, 1885, I attended Mrs. L., in her fifth confinement; her last two confinements had been followed by puerperal fever. She had been delivered by an excellent and careful obstetrician. She dreaded the present confinement. On arrival found the child was born; in a short time the placenta came away. The next visit found the patient doing well, with the exception of some tenderness over the uterus. Being compelled to leave the city, I handed the case over to Dr. A. E. Roussel. On his first visit, the patient was feverish, pulse 100, temperature 101°, discharges extremely offensive, excessive tenderness over the uterus. Internally, two grains of quinia and one-eighth grain morph. sulph. were ordered every three hours, and four times a day hot injections of the $\frac{1}{4000}$ solution of the biniodide of mercury. On his next visit found the patient better and the discharges free from odor. The patient was discharged on the ninth day well, feeling satisfied that the *red pills*, as she called the pellets of the biniodide, had saved her from another attack of puerperal fever.

Case 7. Mrs. B., on December 28, 1885, miscarried about the fifth month. On my arrival at the bedside, found the fœtus had been expelled early during the day; the hemorrhage had been excessive; on examination, found shreds of placenta in the vagina, could detect a larger portion in the uterus; the patient declined any interference, stating that it would come away itself. The patient lived in a small ill-ventilated house, up a court, having for nurse the neighboring women. Gave freely of ergot, but without effect; within twenty-four hours the odor from the vaginal discharges was highly offensive; ordered the $\frac{1}{4000}$ solution of the biniodide of mercury to be thrown up the vagina four times a day: a few injections readily dissipated the odor. On the fifth day the remaining portion of the placenta came away, free from odor. The patient was discharged well on the tenth day.

Case 8. On March 20, 1886, I was requested to attend Mrs. ——, wife of a physician. On my arrival at the house, found that labor pains had set in about 4 a. m. Saturday morning; examination showed the os soft and dilating, waters broken, vertex presentation; labor continued throughout the day, and terminated naturally at 10:15 p. m.; no rupture of the perineum, but the mucous membrane of the vagina, just behind the posterior fourchette, yielded to the extent of half an inch; there was a tendency to post-partum hemorrhage, which was readily checked by compression and the administration of ergot. Next day: pulse 92, skin rather hot, natural flow from the vagina. On my next visit, Monday, March 22, pulse 130, temperature 103½°, pain over the left side of the uterus; the uterus appeared flabby; not having well contracted. Same day at five o'clock, pulse 130, temperature 104°, discharges from the vagina highly offensive. Ordered the vagina to be washed out with a solution of carbolic acid (twenty per cent.), ten grains sulphate of quinine morning and night, and twenty drops of tincture of digitalis every three hours. Midnight, same day, pulse irritable, quick, and compressible; pulse 128, temperature 103°, the discharges from the vagina still offensive. Next morning, temperature and pulse the same; no change. Ordered the $\frac{1}{4000}$ solution of the biniodide of mercury to be thrown up the vagina, and if possible into the uterus; the injections were administered by the husband, and were thoroughly applied. On the 24th, the condition of the patient seemed improved; temperature 102°, pulse 115–120.

On the next morning the husband called at my house and informed me that his wife was in every way worse; the pulse was so irregular that he could not count it; temperature 104°; patient vomited several times; tendency to diarrhœa. I asked Dr. Goodell to meet me in consultation. On arriving at the bedside of the patient, found her in a remarkably good condition; pulse 100, temperature 102°; examination showed slight laceration of the mucous membrane in the

vagina, uterus was contracted; treatment to be continued, with this addition if the case did not get along well: to use ten-grain vaginal suppositories of iodoform in conjunction with the biniodide injections. These suppositories were not used, as the case from this day did well, with this exception, that on the 27th of March, or the seventh day of confinement, she was allowed to get up and use the night-vase. This was followed by a severe secondary hemorrhage, which was checked by hot-water injection and ergot. From the time the biniodide was used the vaginal discharges were free from any offensive odor, and it seemed to have a decided influence on the temperature. The patient is still under treatment.

We have here eight cases added to the three of my first paper, making in all eleven cases. This certainly gives us sufficient data to draw conclusions.

The deductions drawn from my early cases are fully sustained by my subsequent experience, and in my mind fully establish the value of the biniodide of mercury as an antiseptic in obstetric practice.

In my first series of experiments, to make my solution of the biniodide I took one and three-quarter grains of the salt, placed it in a mortar, and gradually broke up its particles, after which I slowly added one pint of boiling distilled water. This gave me a $\frac{1}{4000}$ solution. This took a long time, and often alcohol had to be added to dissolve the mercury.

Mr. J. F. Hayes, of The St. George Pharmacy, conducted a series of experiments for the purpose of placing the biniodide in the hands of the physicians in a convenient and readily-soluble form. To obtain this end, pellets were made of three different strengths. In making them sufficient iodide of potassium was added for the purpose, though not enough to cause any chemical change with the biniodide. The following is the method pursued in making the pellets. Both salts should be perfectly dry. The potassium iodide is first placed in a mortar which has been slightly warmed (just enough to take the chill out of it), and thoroughly powdered; the biniodide is then added and well mixed, but not rubbed hard, or the powder will be apt to cake. Care must be taken not to compress the pellets too hard; they keep just as well and are more easily dissolved when they are compressed just hard enough to make a firm pill. The following is the formula for the pellets:

$\frac{1}{4000}$ = mercuric iodide $3\frac{11}{25}$ grains, potassium iodide 2 grains. Mix as above, and compress in pellet.

$\frac{1}{8000}$ = mercuric iodide $1\frac{23}{25}$ grains, potassium iodide $\frac{3}{4}$ grain. Mix as above, and compress in pellet.

$\frac{1}{15000}$ = mercuric iodide $1\frac{6}{25}$ grains, potassium iodide $\frac{1}{2}$ grain. Mix as above, and compress in pellet.

In this form the preparations can easily be carried in the satchel. When required for use, one pellet is to be added to a quart of hot water (110°). It dissolves easily, and does not stain the clothing or bedding.

The strength which I generally use is the $\frac{1}{4000}$. Should it appear too strong, the pellet can be cut in half or twice as much water used, thus giving a $\frac{1}{8000}$ strength.

221 *South 17th St., April* 1, 1886.

NEURASTHENIA.

BY C. C. THAYER, M. D.,
Of Clifton Springs, N. Y.

(*Concluded from page* 522.)

The ground of difficulty in diagnosis, one readily sees, lies in the multiplied, complex, and unclassified symptoms growing out of an unstable and irritable condition of the nervous system, reflected from the three great centres of nervous sensation, the brain, the stomach, and the genito-urinary organs, upon or through every other organ—each organ of sensory influence shading the reflection with its own peculiar nature and functions. Had neurasthenic patients only *one* organ, the symptoms would be simple and concordant—oh! how many times, in examinations, we have wished they had but one. The vaso-motor system which supplies the blood vessels, in a great degree controls the vascular *circulation*, *secretion*, and *nutrition*, and through the cerebro-spinal system, connects each organ with every other, and their nerve centres, hence the irritable heart, the irritable stomach, irritable ovary, irritable spine, irritable everything, disconcerting and obscuring discrimination till the bewildered doctor wishes his unfortunate patient where the good old deacon thought his darling, but bed-ridden wife, was so eminently fitted for.

ÆTIOLOGY.

The definition and symptoms of neurasthenia suggest at least three causes—hereditary predisposition, malnutrition, and overtaxation. Let us consider these general heads in detail:

1. Hereditary Predisposition. In this sanitarium, where are yearly gathered numerous neurasthenic patients, we find by far the greatest number from neuropathic families, where psychosis, hysteria, and other neuroses

are characteristic and historical features. Children of chronically tired and nervous parents are born tired and nervous, and henceforth too often continue in their deplorable heritage. Being born bankrupt, it matters not how you reckon, plus minus, or minus minus, the result is the same. Their weary, unstable, and restless nerves, like Noah's dove, never find rest. Accumulating but little, yet existing like the Apostle, "cast down but not destroyed," never dying, but half dead always, as Watts has it, "living at a poor dying rate." Their assets being less than their liabilities, any extra taxation throws them into nerve insolvency — hereditary nervousness producing nervous irritation, and nervous irritation producing malnutrition, and malnutrition *strengthless nerves.*

2. Malnutrition. Physical power, like physical growth, forever depends on nutrition. Innervation follows ingesta, and exhaustion malnutrition. Scrofula, syphilis, leucocythæmia, and other constitutional morbid conditions, poisoning, perverting, and preventing healthy nutrition, naturally induce nerve exhaustion. The rationale of this, according to physiology, is that *nerve force* is developed from cell nuclei; and *cell nuclei* are developed by their elective affinity for their appropriate constituents in the blood, and by a formative capacity in the blood itself; and the *blood* is produced at the expense of the organic and inorganic constituents of the food. Hence it is self-evident that in the histogenesis of cell formation, and development of nerve force, the *character and quantity of the food shapes the destiny of nerve force.*

3. Over-taxation. Contrary to the opinion of some neurologists, and the common fears of the laity, I am compelled to affirm that purely muscular taxation is far from being a common cause of neurasthenia. During three and a half years in the United States Army, a longer time among the Armenians and Mohammedans, who make long and intentionally tedious journeys to Jerusalem and Mecca, while in our hospitals, and six years in this sanitarium, I have never seen a case *originating* or *produced solely* by muscular exercise. Mental strain is a fruitful cause of neurasthenia. Yet not so much *work* as *worry*, not fidelity but friction, not the quantity but the quality—whatever produces mental irritation, irritates the sensory and motor nerves direct, and the sympathetic by reflection, and this accounts for impaired sleep, secretion, and nutrition. Neurasthenic patients come mostly from an anxious pastorate, an oppressive school system, and from business embarrassments. Grief also marks its thousands, and when it possesses the mind it ravages the system, like the mythological representation of "Mars seated in his chariot drawn by Flight and Terror; Discord goes before him in tattered garments with a torch; Anger, and Clamor, and Devastation follow."

TREATMENT.

1. Should nerve exhaustion depend upon or be associated with a hereditary cachexia, phtheiræmia, scrofula, or leucocythemia, the constitutional and hygienic methods of treatment are the most natural and the most efficient. Such patients with vitality low, formative capacity feeble, capillary circulation embarrassed, with irritable nerves, rendered more irritable by cold, require warmth and fresh air. Salt air is best for some, while mountains and woodlands better suit others. Too high altitudes are injurious, though at first stimulating at last exhausting, just as a candle shines brighter and burns faster under the same conditions. I have sent many patients with profit to the lowlands of Colorado, but none with profit to the highlands. In latitude 50 on the *highlands* of the United States, neurasthenia is most common, less so in Great Britain, still less in Germany, and still less in Asia, on the same latitude; and says Dr. Beard, it diminishes gradually as we go from this latitude towards either pole. But something more than warmth and fresh air is needed. Appropriate systematic muscular exercise is one of the best prophylactics. Windship, a feeble, consumptive youth, by strenuous and daily muscular application, not only became able to lift at one effort 2,000 pounds, but to overcome disease, and round out a goodly term of life.

2. Should the neurasthenia depend on malnutrition, attention must be paid to the food and digestion. Some eat too much; many not enough. Fitness in quality is paramount. Not the greatest amount ingested, but assimilated, is the point to be gained. Food as near as possible to nature's simplicity, either raw or cooked, without dressings and unmixed, is most easily digested and readily assimilated. This part of the treatment presents two necessities: the promotion of heat and tissue metamorphosis—oleaginous substances for their calorifying powers, and albuminous substances for their histogenetic powers—milk being their best compound representative. If there be digestive inability, an exclusive milk diet for a few weeks is best, lime-water being added to the milk not only for its antacid but styptic and reconstructive qualities. If there be acetic fermentations, starchy and saccharine

substances should be excluded and an exclusive meat diet adopted for a season. In this case all liquids should be excluded during the process of digestion. If butyric fermentation be present, meats and fats should be dropped, and the cereal grains adopted with vegetables—the *variety* at each meal small, the *quantity* sufficient.

3. Should the neurasthenia result from over-taxation, *rest* is the specific, not *recreation;* but prolonged rest of the member overtaxed. Mental rest is often promoted by *muscular exercise,* by prepossessing the thought, and by attracting the blood from the head to the muscles. I have treated successfully many patients with no other remedy than a bucksaw, saddle, fishing-rod, and gun. Where the patient is able, a light and pleasant change of business, with a little pecuniary income for condiment, is remedial.

The treatment in general of neurasthenic patients may be classed under three general heads—internal, external, and eternal.

1. We will head the list with oxygen. "Of these injurious ingredients, carbonic acid is, without doubt, the one most abundantly introduced into the nutritive fluid, and it is also the most deleterious in its effects on the system."* Oxygen is the only agent by which the system is delivered of this poison. In the systemic circulation, oxygen is exchanged for carbonic acid, and in the general circulation, carbonic acid is exchanged for oxygen. "Again, albumen is changed to fibrin in the blood in the presence of oxygen."† Hence, oxygen stands as the natural blood purifier, cell reformer, and nerve vitalizer; and this suggests fresh air, one-fifth of which is oxygen, and pure water, eight-ninths of which is oxygen. Such patients should live day and night in *free* air, and drink largely of pure water, on an empty stomach, which, indeed, they are disinclined to do.

2. The reconstructive remedies are indicated. Where there is phosphatic urine, leucocythemia, struma, etc., hypophosphites, alterative chalybeates, with light vegetable tonics; soda for the liver, potash for the kidneys, chamomile, nux and pepsin for appetite and digestion. Belladonna, ignatia and cannabis indica combined for insomnia, also Jamaica dogwood and bromidia. For external treatment a sea voyage where there is dyspepsia but not melancholy; for surface hyperæmia, with steady pulse and vaso-motor debility, a small stream of cold water on the spine striking on the last cervical vertebra for one or two minutes, followed by a brisk hand-rub; for great debility, the rest cure for three months, with an exclusive milk diet for the first two months; for aphonia, dysphagia, and spinal irritation, hot douches to the spine for one or two minutes. Oil rubs furnish warmth, nourishment, quiet, and protection. Massage furnishes exercise and magnetism. Galvanism is a restful, stimulating alterative. Faradism produces molecular motion and modification of vital processes. Franklinism I prefer for the removal of the varied "aches and pains." The electro-thermal and electro-chemical baths are efficient; the utility of electricity, however, depends upon its appropriate use, it cannot be given any way without as much harm as good. Salt rubs, acetic acid, alcohol (dilute), and quinia, are valuable.

Let us never forget, in the treatment of nerve exhaustion, that this manifestation of force in organized matter that we call life is ever dependent on and supported by the physical forces of nature—light, heat, and electricity — which, acting upon organic germs, are transformed into vital force. Light, heat, and electricity, with nature's food, nature's air, nature's exercise, and nature's rest, are nature's remedies, *par excellence,* for nerve exhaustion.

*Carpt. Phys., p. 502.
†Carpt. Phys., p. 179.

Medical Societies.

THE PHILADELPHIA NEUROLOGICAL SOCIETY.

The President, S. Weir Mitchell, M. D., in the chair.

Drs. Charles K. Mills and James Hendrie Lloyd read

Notes on the Diagnosis of Spinal Tumors.

The subjects of general and differential diagnosis of spinal tumors were alone considered; that of local diagnosis—*i. e.,* of position of the growth at different levels of the spinal axis—was deferred for another paper. The conclusions were based on a study of fifty cases, three of which were personal observations, and the remainder were collected from American, English, French, and German literature. The general diagnosis—*i. e.,* the decision as to the existence of a spinal growth—can be made from a certain train of symptoms. These are of two classes:

1. Those which are directly indicative of such a lesion.

2. Those which are corroborative.

The facts which point directly to a growth within the canal are: History of a constitutional or other cause, as of syphilis, cancer, tuberculosis, or traumatism. The onset and development are gradual and of a peculiar character. The first symptoms are those of an irritative lesion. This is probably due to the fact that tumors usually involve the membranes, as demonstrated by the cases studied. Hence, pain in the back or limbs is usually, but not always, present. The *sensory phenomena*, such as hyperæsthesia, anæsthesia, and paræsthesia, come on with more or less rapidity, with oscillating and irregular manifestations. *Motor symptoms*, such as paresis, spasm (tonic or clonic), contracture, tremor, ataxia, also manifest themselves in a similar oscillating manner. Exaggerated *reflexes* present themselves in most cases. *Trophic* and *vaso-motor disturbances* develop as the lesion progresses. These are such as wasting, ischæmia, œdema, and decubitus. *Visceral disorders*, such as paralysis of the bladder or rectum, or of their sphincters, and disorders of the heart and respiration, are, sooner or later, marked symptoms. Vomiting and gastric intestinal disorders are present in a limited number of cases. Mental disorders are present in only a very limited number of cases of tumors high in the spinal axis, but are not of diagnostic importance. Briefly stated, the phenomena which point with comparative certainty to the existence of spinal tumors are symptoms of meningeal irritation gradually increasing, and symptoms of slow compression of the cord. The data in the cases studied were somewhat meagre as to duration. The usual duration is from six months to three years.

It may be noted that fever was present at some stage in a considerable percentage of cases, but was so irregular as not to be of much diagnostic value.

The differential diagnosis of spinal tumors was considered in reference to the following affections: Spinal congestion, hemorrhage, meningitis, caries, traumatisms, sclerosis, aneurisms, neuritis, metallic and infectious disorders, and hysteria.

Spinal tumors are of constitutional or special origin, as syphilis, cancer, tuberculosis, etc.

Onset is gradual and irregular. Duration is comparatively long.

Progress is gradual, by irregular advances, toward a fatal termination.

Symptoms are inclined to be irregular, *i. e.*, unilateral or local; later, bilateral. Special symptoms, as paralysis, spasm, sensory and visceral disorders, are irregular as to time.

Decubitus and trophic changes are common late.

Reactions of degeneration are often present.

In *spinal congestion*, constitutional cause not present.

Onset is usually sudden and after exposure. Duration is short, from a few days to four months.

Disease is stationary, then retrogression of symptoms toward recovery occurs.

Symptoms are more uniformly bilateral; motor and other symptoms develop about same time.

Decubitus is rare.

Reactions of degeneration are rare.

In *spinal hemorrhages*, there is no special history, or a history of cardiac or vascular degeneration.

Onset is sudden.

Progress is more regular.

The first symptoms persist, and secondary degenerations follow, and differ according to extent and location of lesion, but are more likely to be uniformly bilateral.

In *meningitis*, the symptoms of localized compression are absent. The girdle symptom is absent. The affection is sometimes curable.

Reactions of degeneration are absent.

In *caries*, deformity is rarely absent. Rigidity of the muscles of back is a very important symptom.

In *traumatisms*, there is usually a history. The symptoms are those of caries, myelitis, meningitis, or combinations of these, according to the character of the case.

In *sclerosis*, the symptoms are usually of progressive systemic affections. Compression symptoms are absent.

Duration is longer.

Progress is gradual, and more regular.

Aneurisms are only to be distinguished when extra-spinal, causing erosion and compression.

In *neuritis*, irregular sensory, motor, and reflex disturbances are present; compression symptoms and visceral disorders being absent. It is curable.

In *metallic and infectious disorders*, a history of definite causation is present. In metallic disorders there may be special characteristic signs, such as lead-line, etc.

In *hysteria* a precedent hysterical history is usual.

Onset is often sudden. An emotional element is present. The symptoms are bilateral. Trophic changes are absent. No reactions of degeneration are present.

Dr. E. N. Brush presented

The Brain and Spinal Cord Removed that Day from a Case of General Paresis.

This case was an interesting one in connection with the question of the association of the physical and mental symptoms of paresis. In this instance physical symptoms preceded the mental by some months. In the winter of 1883–84 the patient was discovered by his physician to be ataxic; symptoms of posterior spinal sclerosis increased, and in January were associated with some mental disturbance. The patient was irritable and forgetful, but in a general way complacent. He thought his business was unusually successful, and that he possessed remarkable ability to transact business affairs. He was easily confused, and in attempting to make a short journey alone over a route with which he was perfectly familiar, lost his way, and found himself several miles from home on the wrong train.

His mental disturbance became more aggravated, and at last it became necessary to place him in a hospital. He was first placed in a private institution in a neighboring State, but there—doubtless after a slight epileptiform seizure—became so much disturbed that his removal was requested. In August last he was admitted to the Insane Department of the Pennsylvania Hospital.

On admission, his mind was markedly impaired. He was complacent, quietly submitted to suggestion, and was apparently demented. There were considerable disturbance of speech, marked tremor of tongue and lips and of upper extremities. Patellar tendon reflex abolished; pupils contracted to pinpoints and not responsive to light; Argyll-Robertson symptom was present; gait ataxic.

During his time in the hospital the patient had three epileptiform seizures, such as are met with in cases of paresis. From these he readily recovered, but with increased impairment of mental and physical powers. After two of the seizures he was aphasic for some hours.

At eight o'clock on the morning of the day of his death, the patient had a slight vertiginous attack, followed by loss of power in arms and legs to a great degree, and disturbances of the power of coördination to such an extent that he could not, except after repeated trial, direct his hand to grasp an article held up before him. He protruded his tongue, opened and closed his eyes, and did other simple things upon direction; but to everything responded "yes," and did not seem able to articulate anything else.

At 3:30 p. m. the nurse's attention was attracted by the dusky appearance of his face, which had previously been pale.

The patient was seen at once by Dr. Brush, who found his face almost cyanotic, eyes injected, pupils closely contracted. In a few minutes he had a severe convulsion. At this time the temperature was 102⅘° F. The convulsion continued, and at 4:15 the temperature was 108½° F. Death occurred at 5:45. The temperature was then 107⅘°, and the body was bathed in perspiration. An hour after death the temperature of the body was 107° F. Post-mortem rigidity came on rapidly, and at eight o'clock was very pronounced.

Examination sixteen hours after death.—The conditions found were but briefly referred to, as the speaker intends to report this and some other cases more in detail to the Society.

The skull, especially in the temporal region, was quite thin; the dura was strongly adherent to the skull, and along the median fissure to the arachnoid opia; the arachnoid was, as would be seen, thickened and opaque, over the frontal and temporal convolutions, and along the Sylvian fissures; the pia in these locations was intimately connected with the cortex, and could not be separated without tearing it or the cortex cerebri. The sections made through the brain showed marked sclerosis; indeed, sections made through the anterior convolutions gave considerable resistance to the knife. The cord in the middle dorsal region was much injected.

(*To be continued.*)

CHICAGO MEDICAL SOCIETY.

(*Continued from page* 527.)

Dr. H. P. Newman read a report of

A Case of Ruptured Ovarian Cyst, with Specimens.

Mary H., unmarried; occupation, housework; age, 25; Norwegian. Since her first menstruation at 13 years of age, the menses have been regular but scanty, accompanied by severe pain, necessitating her lying in bed the first day of each period. After coming to this country, four years ago, she seemed to suffer less in this respect, and while not strong, enjoyed a fair degree of health. In September of last year she had a mild attack of typhoid fever, convalescing at the end of the second week. During October she gained rapidly in flesh, and experienced less pain than usual at the menstrual molimen, as he afterward learned. In the second week of

November following she was taken ill with peritonitis. It was during this attack, which was of several weeks' duration in the subacute and localized form, that his attention was first called to any abnormal condition of the pelvic organs. The tenderness of the abdomen and pelvic viscera rendered a thorough exploration impossible, and it was not until January that a satisfactory examination was made.

The patient first came to his office January 25, when he found a tumor extending upward and a little to the right of the median line, from the lesser pelvic basin to midway between umbilicus and symphysis pubis, and corresponding in size and general outline to the gravid uterus at the fourth month. Further investigation revealed fluctuation in the tumor, also that it was detached from the uterus; the latter being crowded to the left and back into the hollow of the sacrum. Although the fluid contents were not examined, the growth was pronounced a probable cyst of the right ovary, and the patient so advised. To any operative procedure the patient demurred, but promised to consider the matter and report at his office the following week. Nothing was heard from her until February 3, ten days later, when he was called to her house at about 6 p. m. He found the patient up, but complaining of pain and soreness of the abdomen, which was slightly tympanitic. Temperature 99½°, pulse slightly accelerated. With the use of an opiate and hot fomentations, the following morning he found her free from pain, with less tenderness over the abdomen, and no tympanitis. Pulse and temperature normal. He enjoined rest in bed, and directed that he should be called in case of further trouble.

On the night of February 6 he was summoned by the message that the patient was very low, and not expected to live through the night. He found the patient at 11 p. m. bolstered up in a chair, in a crouching attitude, with the thighs flexed upon the abdomen. The countenance bore such a pinched and anxious expression as gave striking evidence of grave peril. He was informed that following his visit on Thursday the patient had grown quite comfortable and free from pain, and contrary to his instructions, sat up a large share of Friday. In the evening, while reading a letter, still sitting up in bed, she suddenly cried out that something had broken inside the abdomen. She suffered great distress, and was very much prostrated until 2 o'clock a. m., when she became more quiet. From this time she grew weaker, and had a very "bad feeling," as she described it, vomiting at intervals during the day, but suffering no particular pain. He was not called until late at night, twenty-four hours after the accident related. He found a rapid, feeble pulse of 140, skin moist, extremities cool, temperature 99° F., bowels tympanitic, but no pain, and little tenderness. She had passed no urine since the preceding night, and hardly a tablespoonful of dark fluid could be obtained by the catheter. A digital and bimanual examination revealed little or no change in the consistency and general outline of the tumor, as far as could be ascertained through the distended abdomen.

The gravity of the situation was explained to the friends, and an exploratory operation insisted upon as the only hope. As immediate consent could not be obtained, he advised a consultation. He therefore met Dr. A. B. Strong at ten o'clock that morning. Through the stimulants which had been freely administered during the night, the condition of the woman remained much the same. Suppression of the urine was still a marked symptom, abdominal tympanitis somewhat increased, temperature normal. The possibility of ruptured pelvic abscess, or intestinal perforation from fæcal impaction, was considered, the doctor concurring with me in urging an immediate operation. As soon as arrangements could be made the patient was etherized and placed upon a table. He requested Dr. Strong to perform the operation. The incision through the abdominal wall was about three inches in length, midway between umbilicus and pubis, in the median line. As soon as the peritoneal sac was opened there poured forth about three pints of purulent fluid. When this had been washed away, the tumor was readily recognized, filling the entire hypogastrium, its peritoneal surface engorged and discolored by the existing inflammation. Owing to the extensive adhesions, it became necessary to carry the original incision upward and through the umbilicus to a point two inches beyond, and downward to the symphisis. The fundus of the tumor was firmly attached along the under surface of the mesentery, making it necessary to ligate before removal; and, on closer inspection, a recently torn adhesion was observed, exposing a minute opening in the thinned wall of the sac, through which was oozing the purulent contents. In this connection it should be said that since her former attack of peritonitis, the patient had complained of increasing pain on resuming the recumbent posture, a fact now easily accounted for by the extent

and nature of the adhesions, which must have been thereby put upon the stretch. It is also probable that while sitting up in bed, movements of the body or abdominal viscera, together with the softening of adhesions by recent inflammation, had produced the rupture here found and so perceptible to the patient. The complete separation of the remaining adhesions, and the removal of its growth with the right ovary and fallopian tube, was accomplished. The pedicle was tied with waxed silk, the ligature cut short and left within the pelvic cavity. All torn surfaces inclined to bleed were cauterized with a hot iron. The peritoneal cavity was washed out with hot water, dried with clean sponges, the wound closed, leaving a drainage-tube in its lower angle, and the abdomen covered with antiseptic dressings.

Notwithstanding the free use of stimulants previously to the operation, and hypodermic injections of brandy toward its completion, within the next hour the woman's pulse became hardly perceptible at the wrist, and her immediate condition critical in the extreme. After the use of further injections of whisky and ammonia, and the application of bottles of hot water to the extremities, the patient rallied slightly, and recognized those about her. From nine o'clock in the evening, however, she gradually sank, and died at eleven p. m. The abdomen was opened the next morning by Dr. Strong and the writer. Though covered with recent exudations of lymph, the peritoneal surfaces were of a better color, nor had bleeding occurred from any of the points of detachment.

The tumor as here presented is a unilocular, dermoid cyst, its purulent contents (about a pint and a half) resembling very much the fluid found in the pelvic cavity. It also contained a mass of fatty substances bound together with a quantity of hair. The right fallopian tube here attached was uniformly enlarged, and held a number of drops of pus. The left ovary, which was removed post-mortem, also contained a few small cysts. The uterus was normal both in size and appearance.

The points of interest are: first, the disparity between the temperature noted and the extreme inflammatory changes in the peritoneal cavity; second, the difficulty in differentiating between rupture of this cyst and a possible pelvic abscess; also the resemblance of the symptoms to those observed in a case of twisted pedicle, as reported to the Society by our President, Dr. Parkes, at a recent meeting; and third, the liability of rupture of ovarian cysts, even of small size, where inflammation occurs, constitute additional arguments in favor of early operatian.

Dr. A. B. Strong said he believed it was generally supposed by the profession that peritonitis is always accompanied by an elevation of temperature, as indicated by the thermometer. He had recently seen a case in which a large quantity of pus was removed by section from the abdomen of a boy, in which the thermometer did not indicate any rise of temperature. These two cases seem to show that in purulent peritonitis the temperature is not always a practical aid in diagnosis, unless in a negative way.

The President was inclined to think from some of the symptoms reported that this was a case of twisted pedicle, and that the rupture was caused by the twisting of the pedicle, which is quite often the result of the subsequent distension of the cyst walls; if it is weak at any point, it ruptures. Darkness in color is one noticeable change found in twisted pedicle, and if this was not a case of twisting, there was great resemblance in the symptoms and those of cases he had seen, viz., rapid distension of the abdomen, increased temperature, symptoms of peritonitis, and suppression of urine. In case the ruptured cyst was dependent upon twisted pedicle, it might account for the separation of the adhesion which was found. The mere fact of the movement of the body which was advised against might have precipitated a turn of the tumor upon itself, which led to the rupture by a diffusion of blood. He thought it a very interesting case, and one calling attention to the necessity of insisting upon early interference in all cases where there is supposed tumor of the abdomen, accompanied by the symptoms mentioned. And where the operation is done early there is very little difference in the fatality as compared with the operation done without peritonitis being present.

Dr. Newman said, in conclusion, that he did not think twisted pedicle was present in this case. The adhesions of the upper part and sides of the tumor were of such a nature that there could be but slight twisting of the base on the pedicle, and if it had occurred as a factor in separating the adhesions it must have returned to its normal position again, for the tumor when found occupied its usual position.

Dr. Strong said he was sure the pedicle was not twisted. There were two points of attachment to the tumor, one adhering to the base of the mesentery on the right side,

the other to the sigmoid flexure, both old adhesions, and the points of attachment so located that it would be impossible for the pedicle to be twisted.

The President wished to know how the dark color was accounted for.

Dr. Strong said that it looked at first very much like a uterine tumor, being thick and vascular. It was a light mahogany color, but was not such a color as is found in a strangulated gut.

Dr. J. H. Etheridge said, in reference to the lack of correspondence between the temperature as indicated by the thermometer, and a high degree of inflammation, that the temperature will often be found in cases of peritonitis to be subnormal. In cases of gonorrhœa in the female, complicated by pelvic peritonitis, physicians are often misled by the fact that the inflammation which produces great pain in the abdomen is not accompanied by a temperature which would lead him to suppose that peritonitis is present, thus causing him to erroneously rule out the possibility of there being peritonitis.

Dr. G. W. Webster exhibited a convenient

Case of Antidotes for Poisons, with Stomach Tube.

He said that in his limited experience in the treatment of patients who had taken poison either accidentally or otherwise, he had often found it difficult to procure the proper antidotes quickly enough and in suitable form. It was this that led him to devise this case, intending at the time to have only one made for his own use. The case itself contains a pamphlet concerning poisons and their antidotes, a stomach tube, and the following drugs: ether, ammonia carbonate, nitrate of amyl, apomorphia, sulphate of atropia, brandy, camphor, animal charcoal, chloral hydrate, chloroform, digitaline, dialyzed iron, sulphate of iron, tr. of chloride of iron, mucilage, calcined magnesia, sulphate of morphia, iodide of potassium, liquor potassæ, acetate of strychnia, chloride of sodium, sulphuric acid, tannic acid, sulphate of zinc. The atropia, morphia, apomorphia, strychnia, and digitaline have been made up in compressed tablets and combined with soda, so that they can be given hypodermically.

Dr. J. Frank exhibited a specimen of

Degenerated Kidney,

with a brief history of the case. Thirteen weeks ago, lithotrity was attempted on a man sixty-nine years of age. The lithotrite broke, and the next day lithotomy was performed. The patient did well for about three weeks, when he seemed to fail again, and pus appeared in the urine. Then he got better, and the pus disappeared. But a relapse came, and he died. During the time he was voiding pus, Dr. Frank had made microscopic examinations to find casts, but was unsuccessful. There was total degeneration of the medullary substance of the kidney exhibited, while the other one was full of renal calculi.

The President remarked that the degeneration of the kidney was so great that the tube-cast formation would be impossible.

Dr. R. Tilley exhibited a sample of

Lanolin,

which he obtained through favor from Frazer & Co., of New York. He said lanolin has lately been brought prominently before the medical public by the researches of Prof. Oscar Liebreich, of Berlin, and its clinical applications by Liebreich and others. The substance exhibited, you will observe, is of a yellowish-brown color, and of a plastic consistency. The upper layer is darker than that immediately beneath. Its odor is slight, but *sui generis*. Liebreich says it should smell like wool. It is found in practically all the keratine tissues of the animal economy, but the commercial article is undoubtedly obtained from wool. The sample he supposed to be a mixture of equal parts of pure lanolin and water. Liebreich calls it a cholesterin fat, that is, a substance composed of fatty acid and cholesterin—the more commonly-recognized animal fats being, of course, compounds of fatty acids and glyrceine. He promises later to give us its exact chemical composition. The special point of interest about it to us as physicians, is, that it seems to be absorbed by the integument with much greater facility than the substances now in general use as bases for ointments. In the *Brit. Med. Jour.* of February 13, 1886, a number of formulæ are given, being so far the result of Prof. Liebreich's observations as to the most convenient method of associating it with other substances. He there refers to several clinical cases of interest, psoriasis, favus, and eczema. He regards it as an excellent base for blue ointment. He claims that when a small quantity of a sublimate ointment, 1 in 1000, made with lanolin is rubbed on the skin, in a few minutes the characteristic metallic taste of mercury appears in the mouth, and from this and other observations, concludes that all toxic agents should be used, when associated with lanolin, with great caution.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Regular meeting, January 25, 1886. The President, Daniel Lewis, M. D., in the chair.

The President announced with regard to the subject of a medical directory, referred to the Comitia Minora, that one for the county and city of New York would be issued about the first of May.

On the Advanced Treatment for Radical Cure of Hernia.

Dr. Robert Abbe read a paper with this title, in which he said of previous operations introduced for the radical cure of hernia, that if they were safe they were not effective, and consequently they had been abandoned. This might almost be said of Heaton's injection method. With regard to the open method, of which his paper treated, it was essentially the same whether performed by surgeons here or abroad. In Liverpool it was the custom to use the silver-wire suture for closing the ring, instead of catgut.

In view of the importance of the operation and the variety of results reported, he thought he should put on record a somewhat detailed history of all our operations, in order that its true merits might be judged of. For this reason the author related the histories of twenty-one cases in which he performed the open operation for the radical cure of hernia. In all of these there were urgent reasons why some operation should be performed which would offer the patient relief, giving him comfort either by effecting a radical cure or enabling him to wear a truss and to follow his vocation. According to the reports of the Liverpool surgeons, the operation was a safe one, but Dr. Abbe said the results which they had given were unusually good, and there had been in the hands of other surgeons one death in eight operations. It was true, however, that the cases operated upon were severe ones, for until the present, few others had submitted to the operation. In sixteen of Dr. Abbe's cases there was not absolute strangulation, but in all there was inabilitity to wear a truss with benefit, and to attend to business. There were three deaths. In one it was due to suppuration in varicose veins of the leg, which were operated upon at the time the open operation for hernia was performed. At the autopsy, the hernial wound and abdominal contents were in a healthy state. It was a mistake, he said, to have done the two operations at the one sitting. In another case death was due to fatty heart and to intestinal obstruction from an omental band. In the third case, death was due to hemorrhage from shrinkage of the omental tissue and loosening of the ligature. This occurred notwithstanding special precautions had been taken during the operation to avoid it. Several cases of death from hemorrhage had been reported, and Dr. Abbe thought it was due, as in his case, to a large, thick omental mass, which soon shrunk, and allowed loosening of the ligature. For this reason he advised the use of three, four, or even five ligatures or carbolized silk, and ligation of any bleeding vessels.

As to the final result of the operation, Dr. Abbe said there would in probability be a recurrence of the hernia within one or two years, if not sooner, but it was made manageable, and all of his patients had expressed great satisfaction with the relief which they had obtained. Femoral herniæ were those which caused the patients most trouble, and it was in these that the operation was most effective.

Dr. A. G. Gerster had operated in twenty-seven or more cases, in eight or nine of which herniotomy had been demanded. In three in which herniotomy had been called for, death took place, being due in one to necrosis of the returned gut, which had been thought to be viable; in another, due possibly to the same cause; and in the third, due to follicular diphtheritic inflammation. In all the cases in which herniotomy had not been called for, no disturbance followed the operation. He did not believe a radical cure was ever effected, but benefit was produced from the fact that the patient was enabled to wear a light truss and follow his vocation.

Dr. R. F. Weir had operated in eight or nine cases in which herniotomy had been called for. In two or three of these there was considerable disturbance following the operation, and he was anxious lest peritonitis should develop, but it did not. The operation he thought was useful in those cases of hernia in which a truss could not be worn, in which the inguinal ring had become much enlarged, and the patient was a sufferer or unable to attend to his business. But in milder cases, in which a light truss would control the hernia, he could not see the advantage in resorting to the open operation, which was not without risk, and which, as had been said, did not effect a radical cure, it being necessary afterward that a light truss be worn. He had not lost all faith in Heaton's injection method in light herniæ; he thought that it had resulted in a cure in his hands of from one-third to one-half of the cases.

Dr. D. A. White presented a modification of Wutzer's instrument for invaginating the inguinal canal and exciting an adhesive inflammation. Out of forty or more cases so treated, he had not had to operate twice in more than five.

Dr. P. Albert Morrow then read a paper on

The Diagnosis of Small-pox.

Dr. Gouverneur M. Smith read a report from the committeee on contagious eye disease, in which it was recommended that the state legislature be urged to pass a bill (which he read) providing for a physician attaché to institutions other than hospitals which received children. By the report it appeared that contagious eye diseases in the city institutions were alarmingly common. The report was adopted.

Dr. P. A. Morrow was elected delegate to the State Medical Society, to fill the vacancy created by the resignation of Dr. Alexander.

EDITORIAL DEPARTMENT.

PERISCOPE.

A Case in which a Gunshot Wound was Followed by Symptoms of Chronic Tetanus, which Resisted All Treatment, but Eventually Subsided after a Fall from a Donkey.

Dr. Tobin thus writes in the *Medical Press:*

Notes of this case while under treatment at Netley were published by me in the "Army Medical Reports," but its subsequent history, lately come to my knowledge, so adds to the interest of it, that I now send it forth in its entirety.

Private J. D., æt. 24. Service three years. Family and previous personal medical history good. At the action of Bronkhurst Spruit, South Africa, 20th December, 1880, he received two bullet wounds. The first was a flesh wound in the right cervico-scapular region. The second, received ten minutes later, was caused by a bullet which struck the right clavicle at the junction of the middle and outward third, fractured it, and travelled backwards. The most noticeable and immediate result of this second wound was a violent spasm of the muscles of the right arm and right side of neck, so that the arm, semi-flexed, was fixed to the side, and the head drawn down to the right shoulder at an angle of 45°. On the day after the battle the bullet which caused the first wound was removed, and a search was made for the second unsuccessfully. At a later period this search was repeated, and a general examination of the parts made under chloroform, with no result except that evidence was obtained that the neck of the scapula had been fractured by the bullet. The patient arrived at Netley in August, 1881, eight months after the receipt of the injury. His wounds had healed. He was a strong healthy man, presenting at the lower part of right side of neck a scar an inch and a half long, and another of about the same size at the junction of the middle and outer third of the right clavicle. The bone at this point was deeply grooved, and had evidently been completely fractured. The patient's right arm, flexed at a right angle, was apasmodically fixed to his side. The spasm did not extend in the same degree to the fingers and wrist, as he could move these a little. His head was drawn to the right side, from contraction of the trapezius. He suffered from constant aching pain, worse at night, in the affected parts. During the first few months of his stay at Netley, there was no perceptible change, but about the 12th of October the pain in the arm and shoulder grew worse, and the following remarkable symptoms, which represent his condition on the 16th of October, became developed. The neck and right arm were as already described. Underneath the blade of the scapula, about its centre, there was a spot painful on pressure. From this spot, at intervals of about three hours, a painful spasm extended round the front of the chest to the region of the heart, causing the patient to clutch at that organ with his hands. A few seconds later the spasmodic condition extended to the whole body; the teeth were clenched, the masseter muscles worked violently, the eyeballs became prominent, the pupils contracted, the left arm was drawn to the side in a position similar to that in which the right was constantly fixed; finally the muscles of the back became rigidly contracted and drew the body into a bow for about a minute, during which time the breathing almost ceased, the heart's action became tumultuous, and the face flushed. At the conclusion of each attack the patient usually tried to sit up in bed in

a dazed, exhausted condition. Throughout the symptoms gave one the idea of a tetanic spasm, and the absence of complete unconsciousness, of foaming at the mouth, and of tendency to protrude and bite the tongue, precluded the diagnosis of epilepsy. These attacks occurred every two or three hours, and lasted from five to ten minutes. The convulsions affected both sides of the body equally. There was no anæsthesia or hyperæsthesia of the surface, and no increase of temperature.

Another distressing symptom which added much to the difficulties of the case was great irritability of the stomach. This condition preceded the setting-in of the symptoms just described, and increased with them in severity. At the period I have been referring to it had reached a degree that prevented the administration of any food or medicine by the mouth. The patient, who was a very obstinate man, would not, at this time, hear of any search being made for the bullet, or of any kind of operation. It was necessary, therefore, from the 16th to the 20th of October, to feed the patient with nutrient enemata, while nitrate of amyl, chloroform, calabar bean, bromide of potassium, hydrocyanic acid, and morphia were in turn ineffectually used to try and allay the spasms. On the 20th of October he had reached a degree of exhaustion that rendered a fatal termination probable at any moment. This was explained to the patient, and he gave a reluctant consent to any operation that might be be considered necessary. In consultation it was decided to make an examination of the parts near the wound of entrance, and of the subscapular region. The patient being under the influence of ether, an incision was made parallel to, and about half an inch above the outer half of the clavicle. This passed through the upper part of the wound of entrance, and with the help of a little dissection exposed the cords of the brachial plexus, which were examined and found normal. The clavicular attachment of the trapezius was next divided, and the hand having been passed underneath the scapula, a most careful but unsuccessful search was made for the bullet in this neighborhood. Under these circumstances, and being still of opinion that the source of irritation lay somewhere about the scapula, I removed a portion of the supra-scapular and spinal accessory nerves. The supra-scapular nerve was selected for division because it partially supplied the parts in which the spasms seemed to originate, and it might, morever, have been undergoing a direct irritation in its passage through the supra-scapular notch, the bone having been fractured in that neighborhood. The spinal accessory was divided because I hoped thereby to relieve the spasm that drew the head to one side, and also to relieve the gastric irritability (his most urgent symptom), in case it was dependent on extension of irritation to the pneumogastric. The operation was followed by fairly satisfactory results. The sickness of stomach completely ceased; the head resumed its normal position and movements, the tetanic spasms were lessened in frequency from ten or twelve to two in the twenty-four hours, and the patient in a great measure regained his strength; but his arm, which was freely movable while he was under the influence of ether, became fixed in its former position as soon as the effects of the anæsthetic had passed away, and continued to occasion him much pain and weariness. In this condition he was discharged from the service with a pension, and sent to his friends in Ireland.

For some eighteen months after his discharge from Netley there was no material change in his condition. He sought relief in Mercer's Hospital, where Mr. O'Grady made a very thorough exploration of the brachial plexus, during which he found that the transverse process of one of the upper vertebræ pressed on the nerve underneath it, and that when the musculo-spiral nerve was touched, intense tetanic spasms (even while the patient was under ander an anæsthetic) were developed. A loop of silk was passed round the nerve in question so as to facilitate its division at a subsequent period should occasion require it. The patient, however, left hospital without permitting the information obtained by the exploration to be used for his benefit, and returned to his home, which is near Cootehill. Here he sought advice from Dr. Moorhead, to whom I am indebted for what I have further to relate. At the earnest request of the patient, who had had it in his head that the bullet was lodged near the shoulder-joint, Dr. Moorhead fully explored that region through an incision carried down between the deltoid and pectoralis major, but found nothing. At a point midway between the lower angle of scapula and spine, a painful spot, which gave a sense of fulness to the touch, was found, and on exploring this with a hypodermic needle a violent tetanic spasm was induced. Was the bullet here? The patient would not allow an exploratory incision to be made, and left the hospital at Cootehill with arm still fixed at side, and fits of the character already described occurring thrice daily. So he continued until Septem-

ber, 1883, when the following occurrence gave a favorable turn to his symptoms. He was thrown from a donkey and pitched on his right shoulder. A fearful shock, followed by a cessation of the fits, and later on by an almost complete restoration of the use of his arm, was the result. The position of the bullet, lodged perhaps in the spinal column, was no doubt changed by the accident.

Mycotic Endocarditis.

Dr. Wysskowitsch details the particulars of an experimental inquiry into the nature of ulcerative endocarditis (Virchow's *Archiv.*, 103, Heft 2), to which is prefixed an account of the histological examination of twelve cases of endocarditis in the human subject. Four of these cases were chronic valvular thickening with calcification and necrotic areas, surmounted by warty deposits of fibrin; in four others, the vegetations were more or less vascularized at their union with proliferated endothelial layers (thrombo-endocarditis); the ninth case appeared to be a chronic condition of the preceding; the tenth and eleventh showed post-mortem œdema after chronic endocarditis, in one case, bacteria (undoubtedly saprophytes). Lastly, there was a recent case of ulcerative endocarditis, which yielded abundance of micrococci on the valves, in the spleen and kidneys; on cultivation, the micro-organisms had the characters of staphylococcus pyogenes aureus. The experiments which form the second part of his paper consisted in inflicting on rabbits an injury of the aortic valves by means of an instrument passed down the carotid artery; then injecting into a vein a few hours later cultures of various micro-organisms. It was shown that the operation of piercing the valve was well borne, and not *per se* followed by any pathological consequences; but that the inoculation was often productive of a malignant mycotic endocarditis upon the injured valve, with secondary metastasis, as in human ulcerative endocarditis. These positive results occurred when the inoculation was made with either of the following micro-organisms: Streptococcus pyogenes, staphylococcus pyogenes aureus, and coccus sepsis (Nicolaier); but the injection of micrococcus tetragonus and bacillus pneumoniæ had no such sequel. It was also found that the staphylococcus produced much inflammatory reaction and suppuration, whereas the streptococcus, although causing much more valvular deposit and more numerous infarctions, had no such severe action. The changes in the heart and vessel were not limited to the valves pierced by the stylet; the micrococci growing also on the mitral valve and aortic wall, which happened to be eroded by the passage of the instrument. It is therefore suggested that mycotic endocarditis may be of various forms, depending upon different varieties of micro-organisms. Other experiments to induce endocarditis after inhalation and subcutaneous injection of streptococci yielded negative results; but it was found that the rabbit can only bear inhalation of very small quantities, and it was doubtful if the micro-organism entered the blood-stream at all. Professor Orth, under whose direction this research was undertaken at Gottingen, comments in another article upon the results obtained; they prove, he thinks, that the term "disposition" is no empty one, the mechanical injury of the tissue laying it open to the attacks of the micrococcus which is deposited in the clots. The experiments show also how slight may be the amount of injury required to so lower the vital resistance of the tissue.

Cerebral Syphilis; Fits; Recovery.

Dr. R. W. Burnet reports this case in the *Brit. Med. Jour.*, March 20:

The patient, a man aged 33, was admitted into the Great Northern Central Hospital on September 30, 1885, complaining of "fits," and of severe pains in the head. There was no special wasting of the muscles, but his grasp with the left hand was comparatively feeble; his pupils reacted to light, and there was no squint. The lungs were free, but there was a systolic *bruit* heard in the third left interspace. The left arm and leg were colder than the right; muscular sense and cutaneous sensibility were deficient on the left side. Patellar reflex was exaggerated; there was no ankle-clonus. Smell and taste were unimpaired; but hearing was defective in the left ear. Sight was fairly good. Mr. Marcus Gunn examined the eyes, and reported that the eyeballs appeared normal; the left pupil was larger than the right; both acted to light, and with convergence, but the left was always larger. The papilla in the right eye was greatly swollen, and its boundaries obliterated; in its vicinity several flame-shaped hemorrhages and white patches were seen; the veins were greatly distended; the arteries were much occluded. The left eye was in much the same condition, but the swelling was less. The patient stated that seventeen years ago he had venereal sore with some urethral dis-

charge, and swelling of glands in the groin, without suppuration. There was no history of rash, sore throat, or other symptoms. About thirteen months before his admission he was suddenly seized, while at work, with a fit; and he had the fits very frequently, sometimes daily, since that time. The fits began with slight twitching of the extensor muscles of the forearm or leg, and slight jumping of the hand or foot, or both—but always on the left side. The spasms increased, till the whole left side, including the face, was in a state of clonic spasm. The forearm was flexed on the arm, and the wrist on the forearm; the fingers were flexed, but the first was not clenched. The leg remained extended, and the spasms were limited to the front of the thigh and the leg. After a fit, the affected parts were left cold and paralyzed. This had lasted two hours, and sometimes days had elapsed before he had much control over the left foot. The man had been treated as an out-patient, with bromide and iodide of potassium, but without effect. During the first week after his admission he had nine fits. He was ordered mercurial inunction, and iodide of potassium in seven-grain doses. After October 6, he had no more fits, and very much less twitching. He improved in general health, and gained weight. On November 2, the swelling of the papilla was much less, and the white patches had nearly disappeared. On November 3, he was made an out-patient. He still attended, and was taking from ten to fifteen grains of iodide of potassium three times daily. He could read with ease, and had no fits, but had still occasional twitchings.

A Foreign Body in the Eyeball Removed by Means of a Magnet.

Dr. A. G. Hobbs thus writes in the *Southern Medical Record*:

Mr. A. W., of Alabama, aged forty-two, while drilling with a steel drill, received a wound in the right eye, which gave him but little pain at first, but after twenty-four hours the pain became severe. His physician, Dr. A. B. Coleman, saw him on the evening of the day the injury occurred, and was sure he could see the piece of steel (looking at it, according to the patient's account, with an ophthalmoscope), but would not attempt to extract it. The eye was at once atropinized, but, on the third day, the pain, photophobia, and congestion had increased so much that the doctor referred him to me. I saw him on the fifth day, when I found a small opacity at the sclero-corneal junction, the point of entrance of the piece of steel. I also found considerable iritis, with inflammatory effusions, in the ciliary region. The effusion was so great that his vision was reduced to "finger counting," and it was impossible for me to see beyond the iris. Knowing that the good eye was in danger of becoming involved, through sympathy, I determined to try the magnet, though I had but little idea of the locality of the foreign body.

After thoroughly cocainizing the eye, I introduced a Graefe's knife through the cornea and ciliary region, into the vitreous, following the course of the steel as near as possible, and just missing the lens. After the hemorrhage had ceased, I gently introduced the probe of a Gruning's magnet, and slowly withdrew it, till, upon the fifth withdrawal, a small, irregular piece of steel, about half the size of the head of a pin, came out, adhering to the point of the probe. There was but little loss of vitreous, a very small bead only following the fourth and fifth withdrawals of the probe. The eye was at once firmly bandaged, the patient placed at rest, and the case treated as an ordinary traumatism of the ciliary region.

The pain and inflammation gradually subsided under treatment, and the inflammatory exudations were slowly absorbed till his vision, at the end of three weeks, was $\frac{6}{xx}$. Two weeks later vision remained the same, but all symptoms had subsided, except a small band of iritic adhesions in the region of the wound, which left the pupil irregular in shape. I have no doubt that, had the magnet not been successfully used in this case, an enucleation would have been necessary. I expected that a traumatic cataract would be the result, but I have not heard that such has been the case. I infer that the vision still remains as good, if it has not improved, since the acute symptoms passed away.

The Therapeutic Use of the Digestive Ferments.

Before the Academy of Medicine in Ireland, Dr. Purser read a paper on the Therapeutic Uses of the Digestive Ferments, in which he condemned as useless and irrational the internal administration of these substances, and argued that their true use in medicine was limited to the preparation of artificially digested food.

Dr. Henry Kennedy took exception to Dr. Purser's observations about the effect of pepsine, of which he had had favorable experience himself in children, with whom im-

agination could not be said to operate. How pepsine acted he was unable to explain. Some preparations of pepsine with glycerine were calculated to develop an unpleasant smell, which made it disagree.

Dr. Walter G. Smith regarded Dr. Purser's conclusions as founded on incontrovertible data. It was high time to protest against the illogical and irrational mode of using so-called aids to digestion.

Dr. J. W. Moore said that rectal alimentation was one of the principal uses of digestive agents, from the addition of which to nutritive enemata he had seen good results.

Dr. Atthill said he was sure Dr. Purser's remarks were based on scientific principles, but possibly some of his deductions were not strictly correct; because experiments carried on outside the body could not be identical with experiments inside. While sensible that there was a vast amount of humbug in the sale of digestive ferments, he did not agree with Dr. Purser that those ferments were absolutely useless, having himself prescribed pepsine with good results, especially in the case of children and delicate women. In artificial feeding per anum the peptonized food was of the greatest importunce.

Dr. Purser replied that he was prepared for the protest made as to the use of pepsine, and had anticipated the objection in his paper. As to the effect of medicine on children and delicate women, he did not say the effect was produced through the imagination; but he did not know anybody who gave pepsine and nothing else. The diet was always regulated to make it more easily digestible, and pepsine was prescribed with acid or aromatic water, and aromatic water would often cure gripes in children. To say the thing was different inside the body and outside the body showed an erroneous conception of digestion, which did not take place inside but outside the body. The mucous membrane of the stomach was just as much outside the body as the palm of the hand. The preparations for rectal alimentation were of some value.

An Eruption following Chicken-pox and Measles.

Before the New York Clinical Society, Dr. F. P. Foster presented a photograph of a child suffering from a form of skin disease, and read portions of two letters from Dr. T. L. Axtelle, of Waterbury, Connecticut, who had sent him the photograph.

"Briefly," wrote Dr. Axtelle, "the history of the case is as follows: Last May the child had varicella. Just as it was recovering from this, measles appeared. About the 1st of July, after convalescence from measles, the child was brought to me with a universal papulo-vesicular eruption, most abundant on the trunk, head, and face. This I pronounced acute vesicular eczema. A peculiarity was that the vesicles frequently became confluent, with a strong tendency to umbilication, with subsequent scabbing. This scabbing was chiefly on the face and head. I sent child and mother to the country in July. About the middle of August they returned, when the head was almost covered with one vast scab, with suppuration beneath. About a week before their return the eruption on the legs had appeared as papules, then vesicles, several coalescing and rising about one-eighth to one-fourth inch above the level of the skin. The summit was of a grayish color, and rather a rough, warty appearance. They contained no pus, and did not slough, scab, or scale. They gradually subsided to the skin level under salicylic acid ointment. The only scaly appearance was after they had returned to the skin level, when red scaly patches were left instead of the former nodules.

"I am at a loss to know what to call this. It was absolutely limited to the legs below the knees. Whether the first eruption was eczema, and this a form of the same, or whether I was wrong in the former diagnosis of eczema and the entire eruption is something else, I am uncertain.

"Two points I wish particularly to mention—namely, the eruption on the head and face and that on the legs existed in different stages of progress at the same time, but possessed no features of resemblance. That upon the head and face crusted and scabbed, while that on the limbs at no time manifested any such tendency. Nothing now remains of the nodules on the limbs except red patches marking the situation and size of the elevations."

Instances of Two or More Cases of Diabetes Mellitus in Members of the Same Family or in Near Relatives.

The late Dr. Austin Flint thus wrote in the *Jour. Am. Med. Ass.*, April 17:

Number of instances in which complete family histories were obtained, 36.

Number of instances in which but one case in a family was noted, 27.

Number of instances of two or more cases, 10.

No. 1. Father-daughter. (Both cases observed and recorded.)

No. 2. Brother-sister. (Case of sister only observed and recorded,)

No. 3. Mother-son. (Both cases observed and recorded.)

No. 4. Paternal uncle-nephew. (Case of nephew only observed and recorded.)

No. 5. Brother-sister. (Both cases observed and recorded.)

No. 6. Two sisters. (One case only observed and recorded.)

No. 7. Two sisters. (One case only observed and recorded.)

No. 8. Two brothers. (One case only observed and recorded.)

No. 9. Two brothers. (One case only observed and recorded.)

No. 10. Father, paternal uncle, two sisters, two brothers. (One case only observed and recorded.)

NOTE.—Nos. 1, 3, and 5 are reckoned each as one instance in the thirty-six.

REVIEWS AND BOOK NOTICES.

NOTES ON CURRENT MEDICAL LITERATURE.

——The second number of the "Practical Notes on the Treatment of Skin Diseases," by Dr. George H. Rohé, of Baltimore, is devoted to eczema. It is a neat and instructive pamphlet of 46 pp. (published by Thomas & Evans, Baltimore).

——A study of fractures of the coracoid process appears from the pen of Dr. J. W. Byers, of Charlotte, N. C. It is a valuable contribution to the scanty literature of this rare accident.

——The use of cocaine in hay fever is advocated by Dr. Seth S. Bishop, of Chicago, in a tract before us. He employs a six per cent. powder of cocaine and sugar of milk in an insufflator.

——The influence which may be exerted on the central nervous system by hypertrophied labia minora, is set forth in a short paper by Dr. C. L. Gwyn, of Galveston, Texas. He traces to this condition many cases of general nervous irritation, nymphomania, etc.

——Those who would acquaint themselves with the remarkable researches of Dr. Domingos Freire on vaccination as protective against yellow fever, should obtain his pamphlet published in the French language, entitled *Le Vaccin de la Fièivre Jaune*, which may be ordered directly from his home, Rio Janeiro. This pamphlet gives a summary of the results of his practice between January and August, 1885.

——Several curious instances of supernumerary mammary glands and nipples are described in a reprint by Dr. William A. Edwards, of Philadelphia.

——A blank Note Book for cases of Ovarian and other Abdominal Tumors, adapted from the note books of Dr. Spencer Wells and the Samaritan Hospital, London, has been prepared by Dr. John Homans, of Harvard College, and published by Cupples, Upham & Co., Boston. It will be found quite convenient.

——Dr. William A. Byrd, of Quincy, Illinois, sends a reprint reporting a case of successful amputation of the hip-joint.

——A useful pamphlet of instruction to pathologists has been published at the State Hospital for the Insane, Norristown, Pa. It is entitled, A Brief Synopsis of the Various Points involved in the Coarse Examination of the Brain and Spinal Cord," by Francis K. Dercum, M. D. (8vo., pp. 11.)

BOOK NOTICES.

A Reference Hand-book of the Medical Sciences. Edited by Albert H. Buck, M. D., Vol. II. New York. William Wood & Co., 1886.

This very handsome and excellently edited work cannot be spoken of in other words than with praise. It comprises over 800 large, double column, quarto pages, on first-class paper, and in clear, though rather small, type, with numerous wood-cut illustrations scattered liberally through the text, and a series of full-page chromo lithographs, exhibiting in their natural colors various surgical and botanical subjects.

As our readers were made aware from our previous notice, the work is in fact a dictionary of medicine of the most complete kind. The present volume carries the topics down from "catarrh, nasal" to "eye," inclusive. Each entry of importance is written by some special contributor, who signs his articles, and thus gives the statements a personal guarantee which adds largely to the value of the whole. These contributors are nearly all residents of the United States, and include the most prominent medical writers of our country. With such judicious liberality on the part of the publisher, and with such a corps of contributors, one cannot doubt that the effect of this extensive undertaking will be highly improving to sound medical learning.

THE

Medical and Surgical Reporter.

A WEEKLY JOURNAL,

ISSUED EVERY SATURDAY.

D. G. BRINTON, M. D.,
JOSEPH F. EDWARDS, M. D., } EDITORS.

The terms of subscription to the serial publications of this office are as follows, payable in advance:—

Med. and Surg. Reporter (weekly), a year, $5.00
Quarterly Compendium of Med. Science, - 2.50
Reporter and Compendium, - - - 6.00
Physician's Daily Pocket Record, - - 1.50
Reporter and Pocket Record, - - - 6.25
Reporter, Compendium and Pocket Record, 7.00

For advertising terms address the office.

Marriages, Deaths, and Personals are inserted free of charge.

All letters should be addressed, and all checks and postal orders drawn to order of

D. G. BRINTON, M. D.,
115 South Seventh Street, Philadelphia, Pa.

THE

QUARTERLY COMPENDIUM OF MEDICAL SCIENCE.

The attention of our readers is especially called at this season to the ***QUARTERLY COMPENDIUM,*** which we publish.

It is, in fact, a supplement to the ***REPORTER,*** being made up of articles which have not appeared in the weekly, but yet are of value and interest to the physician.

It contains about 150 pages of reading matter in each number, and the whole four numbers, embracing 600 pages of choice material, will be sent to paid-up subscribers to the ***REPORTER*** for the very moderate price of

ONE DOLLAR,

in advance, for the year.

Address **DR. D. G. BRINTON,**
115 South Seventh Street Philadelphia.

NERVOUS DISEASES AFTER RAILROAD ACCIDENTS.

When a serious accident happens on railroads, the more visible lesions are generally the only ones reported. But after injuries to the head, and after all accidents which are accompanied by more or less concussion, by more or less shock, the immediate consequences are often the least dangerous, and the injuries which the nervous system receives, and which generally make their appearance later, are more important than the morbid signs first visible at the time of the accident.

That the subject has received special attention only of late cannot surprise, for the attending surgeon, after the wounds have healed for the treatment of which he was called in, leaves the patient apparently restored, and often never hears of him again. But of late the grave consequences of such accidents to the nervous system have become more frequent, probably because the concussion suffered by the victims of modern railroad wrecks is severer on account of the greater swiftness of the trains.

Charcot considered the nervous phenomena which so often develop after the immediate consequences of these injuries have disappeared, to be of an hysterical character; and this view has been held by most observers until Dr. H. Oppenheim, Assistant to the Nervous Clinic of the Charité Hospital in Berlin investigated the subject and published the result of his researches in the *Arch. f. Physiol.*, Bd. xvi., H. 3, '85.

From this report we learn, that the psychical disturbances occurring after such accidents usually assume the character of hypochondriasis, while amongst true neuroses hysteria, epilepsy, and various forms of neurasthenia are observed. That we have to do in these cases with genuine neuroses is apparent from a group of symptoms very common in these cases: stubborn headache, vertigo, vomiting, disturbances of motion, impairment of motion, impotency, difficulty in micturition, sensation of a tight band around the trunk, and even immobility of the pupils and atrophy of the cystic nerve.

But though these nervous phenomena in all these cases have more or less the same fundamental character, they are grouped differently in different cases. In some the picture they present does not fit into the frame of any one group, and many cases show a mixture of psychical and nervous symptoms, and are, therefore, partly psychoses, partly neuroses. In many instances we, besides, observe signs which clearly indicate a chronic grave lesion of the central nervous system.

Dr. Oppenheim lays special stress on the importance of not considering simulation, when the group of symptoms is such as not to harmonize with our view of what it should be. So many psychical and nervous anomalies are often observed in these cases, that we should long hesitate ere we ascribe to simulation what after all may be a grave lesion.

Concerning prognosis, O. has never yet seen a case of complete cure. Especially when the symptoms occur in an employee, who continues in the service of the company, the prospects of a cure are very small. In some cases the symptoms are in the beginning for a long time mild, and then assume a graver aspect, a point well to be remembered in the prognosis.

THE EFFECTS OF INSUFFICIENT FOOD AND OF STARVATION.

We often find, especially amongst clinical patients, all kinds of organic lesions without being able to determine the pathogenic element, for these morbid alterations are met with in individuals who have never been in the habit of using alcoholic stimulants, and who neither suffer from malaria, syphilis, nor any other dyscrasia. It is probable that the recent experiments of Drs. Possahni and Ochotin, of St. Petersburg, Russia, may throw some light upon these cases. The former made over fifty experiments in the laboratory of Prof. Pashutin on three dogs, of twenty-two hours' average duration. He investigated the respiratory gases of starving animals. The exhaled watery vapors, CO_2, and the inspired oxygen were quantitatively determined. The results of these researches were as follows:

1. The temperature of starving dogs diminishes only one or two days before death.

2. The percentage of loss of weight is most considerable at the beginning of starvation and immediately before death.

3. The quantity of urine greatly diminishes the first few days, but increases in proportion to the weight of the body as death draws near.

4. The absolute quantity of exhaled watery vapor diminishes from one-half to one-third the first few days, and then continues at that height until life is extinguished, while the quantity of carbonic acid exhaled diminishes in the same ratio as starvation increases.

5. The animals use at the beginning of starvation less oxygen than later, near death.

Dr. Ochotin limited his experiments to the pathological anatomical changes of the organs of rabbits partly starved, *i. e.*, such as did not receive a sufficient quantity of food, or food nourishing enough fully to sustain life. It was found that animals which for a long period received only about one-fourth of their accustomed food showed the same morbid changes as those which for a day or two were well fed, then for a number of days received no food, then again had plenty given them, etc.

All the animals thus insufficiently fed sooner or later showed atrophy of the organs, granular and fatty degeneration, proliferation of interstitial tissue, and division of cellular nuclei (rariokinesis). The changes were less only quantitatively than those caused by complete starvation.

KERNIG'S FLEXION-CONTRACTURE.

Not long since we reported the observation, first made by Kernig, that in some brain-diseases, as soon as the thigh is flexed the knee and also the elbow-joint become flexed, not allowing extension. Dr. W. Bull, of Christiania, has observed this phenomenon three times, and publishes his notes of the cases in the *Berl. Klin. Woch.*, 42, '86. One was a case of tubercular meningitis, the second one of tumor of the cerebellum, and the third one of thrombosis of the transverse sinus. The last two cases occurred in boys respectively 11 and 16 years old, and a post-mortem examination was permitted only in them.

The symptom mentioned does not appear to be pathognomonic of any special brain disease, but seems to occur in various lesions of the brain. Should further observations, however, demonstrate the fact that this sign sets in very early in tubercular meningitis, it would be of great clinical importance.

The explanation of the phenomenon is the following: Healthy individuals can extend their knees perfectly only, if the angle formed by abdomen and thigh is not less than 90°. As soon as the thigh is flexed more, so that it forms with the abdomen a more or less acute angle, the knee-joint cannot be straightened out to an angle of 180°. The bend of the knee then remains in an obtuse angle, and further extension is prevented by contraction of the posterior muscles of the thigh. As a consequence of this fact, the test should be made only with the thigh at right angles to the abdomen.

In healthy persons the mild contraction of the posterior thigh muscles which ensues on extending the knee-joint while the hip-joint remains in rectangular flexion does not cause any reflex effect. But in an individual suf-

fering from a lesion of the brain, especially compression, this mild contraction suffices to serve as an irritant, which in its turn produces a spasmodic contracture of reflex character in the respective muscles, which yields only when the irritation ceases on extending the hip-joint, and thus relaxing the posterior muscles of the thigh.

THE NEW DISINFECTANT, IODOL.

Silber and Crammician, in Rome, recently discovered a new disinfectant, "iodol." In etherial tar oil amongst others pyrrol is found, which when treated with biniodide of potash produces a crystalline union, tetraiodi depyrrol, C_4I_4NH—iodol. It is a light brown powder, which if not pure gets darker under the influence of sunlight. Its faint odor resembles that of thymol. In water it is scarcely at all soluble; easily in alcohol. A twenty per cent. alcoholic solution of iodol may be mixed with an equal quantity of pure (free from water) glycerin, without becoming opaque. All solutions of iodol, if at all concentrated, have a brown tint, also fats and cosmoline, to which iodol has been added. It is employed as a dressing for wounds, either in the form of fine powder or with cosmoline, or dissolved in alcohol (2–3 : 35 alcohol) diluted with glycerin to 100. It causes no intoxication by absorption from wound.

NOTES AND COMMENTS.

Paralysis Following the Injection of Iodo-glycerine for the Treatment of Spina Bifida.

To a recent meeting of an English medical society, Dr. Lycett exhibited a girl, aged 6, who, at birth, was the subject of spina bifida over the upper part of the sacrum, forming a tense sessile tumor, of the size of an orange, having an ulcerated surface of the area of a crown-piece, which, on healing, formed a thin membranous covering to that portion of the sac. As it became thinner through expansion, it was tapped when she was six weeks old. An ounce and a half of fluid was drawn off, and forty minims of iodo-glycerine injected with a negative result. The sac refilled about a week afterwards; about an ounce of fluid was withdrawn, and the injection increased to a drachm and a half, causing the sac, in a few days, to become obliterated. Co-incidentally with the shrinking, however, came loss of sensory and motor power in the legs, with incontinence of fæces and urine; the paraplegia, which persisted, being complete below, and incomplete above the knees. Hydrocephalus also commenced immediately after the operation, and gradually increased until the third year, when the fontanelles closed without developing any nerve-phenomena, or impairing the mental power. The horizontal circumference of the head now measured 22 inches. In the report of the committee appointed by the Clinical Society of London to inquire into the subject of spina bifida, there was a case recorded, where paralysis supervened and persisted after the cure of the tumor, and appeared to be due to the treatment adopted. In several cases, temporary paralysis occurred, which passed off in a variable time; once complete paraplegia, which subsequently disappeared. In three cases, hydrocephalus set in subsequently to the cure of the spina bifida. Of the various operative measures, that by the injection of iodo-glycerine was recommended in preference to any, as promising the greatest success, though the table of results showed that of 71 cases, only 35 recovered, 27 died, 4 were relieved, and 5 unrelieved. As evidence of the frequency and serious nature of this affection, it appeared that it caused no fewer than 647 deaths in 1882, of which 615 were in children under one year of age.

Method of Treating Fractured Clavicle.

At the meeting of the Manchester Medical Society, on February 17, Mr. C. E. Richmond demonstrated an easy method of treating this injury. The position adopted was similar to the French one; the palm of the hand of the injured side being laid flat on the chest. The best position for adapting the ends of the fragments was first ascertained by abducting the elbow from or approximating it to the sternum. A piece of broad strapping was passed round both arm and body, to fix it in the required position. A piece of calico, twelve inches broad (more in a big adult), and in length sufficient to go twice round the body, was torn longitudinally, so as to make a four-tailed bandage, leaving about the middle eighteen inches untorn. This centre part was then grooved round the elbow, and the two lengths of the band (a), that lay next the body, were taken one up in front of the chest, over the flat hand, and the other up behind. These were then knotted together behind the sound shoulder, the ends being meanwhile held out of the way. The other two lengths (b) were taken round the arm and body in front and

behind, and also knotted behind and below the sound shoulder. The (a) ends were then brought down, one in front and one behind, and knotted betwixt the fixed elbow and the body, and then cut off short. The (b) ends were then again brought round the body over everything, and finally knotted in the hollow above the fixed elbow. Wadding was then inserted under the knots to prevent them from galling, and the hand against the chest was secured to the length of bandage, passing over it by means of a strip of calico passed round both. The advantages claimed were these: 1. There was no necessity for special apparatus. 2. The arm was fixed in the most favorable position. 3. The fixing was permanent. The method had been used in numerous cases with the best results.

Croupous Pneumonia and Gangrene of the Lung; Death; Necropsy.

The patient, a boy six years of age, lost both parents from lung disease, a sister had a leg amputated for disease of the knee, while another sister suffers from keratitis and caseous cervical glands. The patient has always been delicate, and for some months he has had a cough. When admitted into hospital he was found by Dr. Oxley (who reports the case in the *Lancet*) to have a very rickety chest, his temperature was 103°, and his respiration 44 per minute. His cough was frequent, and he had a scanty, viscid, yellow expectoration; the breath was rather foul; he had also signs of consolidation of the lower lobe of the right lung. In two days the breath became extremely offensive, the odor being fæcal in character and permeating the whole ward; signs of a cavity also appeared in the base of the right lung. The consolidation gradually crept over the whole lung, the pulse becoming more and more feeble. The smell persisted, though not quite so offensive as at first, owing to antiseptic inhalations. The patient died after being in hospital thirteen days.

After death the right pleura was found generally adherent; the right lung was in a state of gray hepatization; the lowest lobe contained a cavity about the size of a small orange; the walls were rough and of a dark greenish-blue color, it contained some ichorous fluid; there was a second smaller cavity in the middle lobe. The lung substance round these cavities was of a pale greenish-blue color; the tissue in the upper lobe was of a pale fawn color, and was absolutely airless. The left lung was œdematous. The mediastinal and bronchial glands were caseous, and in most of them the caseous material was more or less calcified. None of the glands were gangrenous. There was no heart disease. No tubercle was found in any part of the body.

Antipyrin in Pernicious Forms of Malarial Fevers.

Dr. John Hope Potter writes to the *Lancet* that while in charge of the Police Hospital of Bombay during his tenure of office as Acting Police Surgeon, he had considerable opportunities of testing the effects of different kinds of treatment in malarial fevers, of a remitting as well as an intermitting type. In common with most men who have had much experience of these fevers, he met many cases of a remittent type which were not amenable to the ordinary treatment, whether by quinine, arsenic, or diaphoretics with aconite. He determined to try the effect in such cases of administering antipyrin in sufficiently large and repeated doses to ensure a reduction of the temperature to the normal standard. The result was most satisfactory, so much so that during the last five months of his tenure of office he found no case that was not amenable to this treatment. Many cases that for weeks had been quite unaffected by the ordinary remedies were instantly cured by the exhibition of antipyrin followed by quinine. The few cases in which he found the effects unsatisfactory eventually showed other complications, such as abscess of the liver or phthisis. He is of opinion that in pernicious forms of uncomplicated remittent fever we have a most valuable aid to treatment in antipyrin.

As he is not aware that this treatment has been advocated in the malarial fevers of the tropics, he writes to give the result of his experience, in the hope that it may prove of use to those who have to contend with this common and only too fatal disease.

Permanganate of Potassa—Amenorrhœa.

Dr. Lee O. Rodgers, of San Francisco, reports the following case to the *Med. Record:*

"Miss F., aged nineteen, was sent to me for advice, and gave the following history: She leads an active life when at home, spending much time in the open air. In July, 1884, she came to a town adjacent to this city on a visit to friends. She began shortly after to grow 'stout,' her abdomen particularly becoming prominent. Her menses disappeared entirely after the period in July, previous to which she had always been per-

fectly regular. In March, 1885, she was sent to me by her hostess, who thought her pregnant, for the purpose of being kept in the city and confined. The girl seemed to be remarkably healthy, and was very 'fat,' and she proved, upon physical examination, to be a virgin. I immediately put her upon potassium permanganate, a two-grain compressed tablet four times a day, each tablet to be followed immediately by a large gobletful of water. Much nausea and some vomiting occurred during the administration of the medicine, but I attributed this to the fact that I gave the tablets on an empty stomach, as I accepted Bartholow's theory of the action of the drug. On the fourth day of the administration of the permanganate the menses appeared and lasted four days, after which the patient was sent to her home. She was instructed to inform me if her menses failed to appear on time after her return home, but I have not heard from her yet."

Hysteria in Soldiers.

Dr. A. T. Ozeretskovski describes in the Russian *Medical Review* a whole series of cases of hysteria occurring in soldiers, presenting nearly all the phenomena usually associated with this affection as it occurs in females—dumbness, deafness, deaf-mutism, various disturbances of vision and of general condition, spasms and paralyses, troubles connected with micturition, joint trouble, elevations of temperature, &c. The subsequent history of the cases in most instances left no doubt of the correctness of the diagnosis. Predisposition and heredity played a large part in the etiology, in and some instances there was injury or shock. Half the patients were recruits, which tends to show that the sudden change from domestic life and work to the arduous conditions of military service is not without effect on the nervous condition of the Russian soldier. The treatment of the hystero-epileptic cases was always unsuccessful, neither water, electricity, nor narcotics appearing to exert any influence over the frequency or severity of the attacks. The cure of the paralytic forms of the disease was successfully accomplished by means of exercise, gymnastics, &c.

Hepatic Origin of Urea.

Dr. D. W. Aitken describes, in the *British Medical Journal* of February 6, 1886, the following interesting case, the direct bearing of which upon the question of the source of urea is evident:

Early this month (January) I was called to see a boy who had the day previous received a rather severe blow upon the right lobe of the liver. When seen he was complaining of much pain in the right hypochondrium. The skin was slightly, and the conjunctiva distinctly jaundiced. The stools were pale, while the urine was bile-colored, and gave the bile reaction with nitric acid; there was no fever. But herein lies the important matter. The urine was highly alkaline. On the addition of nitric acid there was such violent effervesence that the froth was forced out of the test-tube, although the urine was not much more than one inch deep. I got my friend, Dr. Drinkwater, to examine the urine carefuly. He reports that the alkalinity was due to ammonium carbonate, and, on estimating the urea, he found only three per cent.

This evidence seems to point strongly to the liver as the seat of production of urea. Dr. Graves has already reported several cases of absence of urea which he believed to be represented in the urine by the ammonium carbonate, but here we have a history of the organ involvved.

Nitro-Glycerine in Chronic Nephritis.

After discussing this form of treatment and relating several cases in the *Medical Record*, Dr. Francis Kinnicutt thus concludes:

"My investigations, so far as they have been carried, permit of the following summarization:

"1. That in nitro-glycerine, given in small doses and frequently repeated, we possess a powerful agent for lowering the increased blood-pressure which is very constantly associated with the development of uræmic symptoms.

"2. That it has the power to control or relieve many of the paroxysmal disturbances of the nervous system which are included under the general term of uræmia; of these headache and asthma are especially benefited by its use, the relief being more marked and continuous than that obtainable either by opium or chloral.

"3. That its influence upon the daily excretion of urine and serum-albumin in parenchymatous and interstitial nephritis is apparently to increase the former and diminish the latter.

"4. That in the systematic and prolonged use of nitro-glycerine, in appropriate doses, in chronic nephritis, we possess a means of maintaining more or less continuously a

lowered blood-pressure, of often averting or relieving critical conditions, and thereby prolonging life."

Fœtid Bronchitis.

Before the Academy of Medicine in Ireland Dr. H. Kennedy detailed two instances, both in young females, where a very profuse expectoration, attended by a most offensive odor, occurred. The fetor was so great as to diffuse itself through a large ward, like what occurs in gangrene of the lung. The physical signs were in each case confined to one lung, and were what is now known as chronic strumous pneumonia. In each case there were slight signs of hectic, with the nails curved; whilst menstruation was irregular. Under the use of a combination of powdered uva ursi and charcoal, the patients improved much in their general health, and the fetor quite ceased at the end of ten days, and in about a month each patient left the hospital to look for places as servants. No local treatment in the way of inhalation was used.

Dr. Hayes instanced the case of a woman in Dr. Steevens's Hospital whom he had seen at the request of a colleague; the patient was the subject of a fetid bronchitis. He suggested an inhalation consisting of a combination of creasote, carbolic acid, iodine, and spirit, and the fetor disappeared entirely in a few days.

Spinal Curvature.

Before the Midland Medical Society, Mr. William Thomas exhibited two patients suffering from Angular Curvature of the Spine, each of them wearing an inexpensive jacket which he desired to bring before the members of the Society as a useful method of treatment. The principal feature of the jacket was a support of soft Swedish iron, which could easily be adapted to the changing shape of the spine, and could readily be arranged to support the head. This was applied closely to the spine, and, being sewn into a jacket of jean, was kept in position by lacing up the front. He claimed for it greater facility of application, more ease to the patient, less cost, and better results, than from treatmeut by the plaster jacket.

Inhalations in Pulmonary Tuberculosis.

In the *Revue de Therap.*, Rienzi presents the following results of numerous observations upon the treatment of pulmonary tuberculosis by medicated vapors:

1. Inhalations of minute quantities of the vapor of iodine, and of a mixture of iodoform in turpentine, induce amelioration of the local condition and of nutrition, but do not modify the fever, diarrhœa, or night-sweats. The mixture last named consists of twenty-five parts of turpentine to one of iodoform. Two to six drops of this are to be hourly volatilized in an apartment of average size.

2. Inhalations of sulphuretted hydrogen (four cubic inches of the gas to each cubic yard in the room) and of sulphurous acid, augment the general and dynamometric strength of the patient, and have a beneficial effect upon nutrition and renal excretion. The sulphuretted hydrogen possesses an especial action upon the respiration, which, together with cough, is diminished in frequency.

Sponges in Ovariotomy.

Dr. Lombe Atthill tells us in the *Medical Press* (March 3) that he uses only a small number, and these he makes use of over and over again. He finds that ten small and three large flat ones are, as a rule, all that are needed. If you have a large number in use, they are apt to be mislaid. He has seen the abdomen searched all over at the end of an operation for a sponge which had rolled unnoticed into a corner of the room, where, if only a limited number had been used, one, if dropped, would have been missed at once. But he always has two in reserve to replace any which, from having dropped on the floor, or from any other cause, may be deemed unfit for further use. The operation being over, he washes the sponges himself in pure water thoroughly, and then leaves them soaking for twenty-four hours in a solution of the perchloride of mercury, of the strength of 1-1000; squeeze them out of this, and dry them thoroughly, and they again go through the same process before being used.

Acute Febrile Pemphigus.

Dr. Chas. E. Gooding reports a case of this rare disease in the Canada *Medical and Surgical Journal.* A negress of thirty-one, who had always been healthy, noticed several small slightly raised spots on her chest, attended by moderate itching. In the evening, there was headache, malaise and fever, which increased in intensity. Small vesicles appeared in the spots, and, in a few days became bullæ. The whole body became covered except the legs, palms and soles. The bullæ burst, crusts formed, and pus oozed from under them. She was seen at this time,

and emitted a horrible stench. Diarrhœa set in, the patient became progressively weaker, and finally died of exhaustion on the 24th day. Patches were noticed on the pharynx and uvula, and the author regarded them as a mucous involvement of the same disease. He also looked upon the diarrhœa as caused by a similar affection of the gastro-intestinal tract. This view is quite probable, on account of the intensity of the attack and its rapidly fatal effect.

Pichi.

Among the remedies of local repute in South America which the energy of Messrs. Parke, Davis & Co. is introducing to the profession at large, one of the most interesting is *pichi*. The specific name of this drug is *Fabiana imbricata*, and it belongs to the natural order *Solanaceae*. Its active principle appears to possess the power of markedly stimulating the hepatic, renal and stomachal functions, expending its force on the excretory organs. In Chili, where it grows abundantly, the shepherds employ it for the relief of hepatic hydatids in sheep, and calculous disorders in the human subject. It may be classed among the digestives and diuretics. From a sketch of its properties furnished by Dr. Henry H. Rusby in the *Therapeutic Gazette*, it seems to be worthy of careful attention. Those of our readers who would investigate this remedy further may obtain information by addressing Messrs. Parke, Davis & Co., of Detroit, Mich.

Carbolic Acid in Indigestion.

In a recent number of the *Practitioner and News*, a correspondent says:

"I have just passed through a severe attack of indigestion accompanied by colic, pyrosis, food eructations, epigastric weight, uneasiness, etc. Alkalies, muriatic acid, pepsine, and pancreatic extract, failed to give relief. Seeing your note in the *American Practitioner* on the use of carbolic acid in acid eructations, etc., I took, with almost instant relief, two or three drops of the acid as soon after food as regurgitation, distension, or acidity occurred. One dose was usually sufficient. On two occasions only was a second dose required. This I took half an hour after the first. I dropped the acid on a bit of fresh bread, and rolled the mass into a pill. Since my own case, I have given it in a similar case with like good result. Here I added a scruple of carbolic acid to one ounce of glycerine. Dose, a teaspoonful."

Malthus's Law and Tumor-Growth.

Dr. Jonathan Hutchinson writes as follows, to *The British Medical Journal* of March 20, 1886:

Malthus's law of population-increase by geometrical progression applies to the growth of tumors. The larger they have become, the more rapid is their rate of progress. It is a process of cell-multiplication; and the more numerous the cells, the greater the result of their doubling. It is important to remember this law, since it may help us: first, in prognosis; secondly, in emphasizing the importance of early treatment; and, thirdly, as showing the occasional advantage of methods of treatment which diminish bulk and retard growth, although there may be no hope of cure.

The Malthusian law is often remarkably illustrated in cases of rodent ulcer, which advance very slowly at first, and very rapidly later on.

Indirect Cerebral Syphilis.

Under this name Dr. F. Lavergne (*France Medicale*) desires to classify those cases in which the brain lesions are secondary and consecutive to those of the neighboring bony structures. He treats of the clinical history and necropsy of this affection in a thorough manner, and calls attention, and justly too, to the fact that the prophylactic means must be used early and energetically to prevent disastrous results. Later on, antisyphilitic treatment will not avail. The lesions have become vulgar, and require treatment such as indicated, and not of a specific nature. By careful examination and observation the cranial involvements of syphilis will oftentimes be recognized early enough to prevent the more dangerous complication of syphilitic brain implications; and an energetic course of mixed treatment will always do this, if given in time.

Nocturnal Incontinence of Urine.

In the *Journal de Med. de Paris*, Dr. Ziem confirms the statement made by Dr. Major, of Canada, that nocturnal incontinence of urine occurs very frequently in children who are forced to breathe through the mouth by reason of some nasal obstruction. He rests his assertion upon some cases recently observed by him, and he regards it as very probable that the infirmity might be cured by the re-establishment of the normal mode of respiration. The author endeavors to explain the relation existing between buccal respiration and nocturnal incontinence of

urine, by regarding the latter as due to insufficient hematosis and a consequent accumulation of carbonic acid in the blood.

Cholera.

Before a foreign medical society, Dr. William H. Pearse read a paper on cholera. He argued that the facts of miasmatic contagion, and of the autogenesis of cholera must both be admitted, and were embraced in a greater theory of evolution. He applied Darwin's hypothesis of autogenesis to the autogenesis of cholera; he maintained that changed environment had been followed by cholera; and held that vito-chemical poisons evolved, after periodic intervals, from varied "shocks," or extremes of environment. Dr. Pearse applied the doctrine of "continuity" to cholera, and suggested the method of co-ordination to those not visibly affected.

Cocaine in Vaginal Operations.

A foreign exchange tells us that Dr. Yakub has successfully employed a twenty per cent. solution of cocaine in two gynæcological operations, kolpo-perineorrhaphy, or, to give it a less alarming name, suture of the perineum and vagina, and the removal of a papilloma from the posterior wall of the vagina. The solution was applied five or six times, and complete local anæsthesia produced. Both the wounds healed by first intention.

Francisceine.

Francisceine, according to the *British and Colonial Druggist*, is proposed as the name of a new alkaloid which has just been extracted from the Brazilian manaca root,, the produce of the Franciscea uniflora and certain other species. The principle in question has a very powerful purgative and diuretic action, and is also possessed of diaphoretic and emmenagogue properties.

Sulphate of Thallin.

Dr. Britneff, having investigated the effect of sulphate of thallin in fifteen febrile cases —pneumonia, tuberculosis, and typhus—has come to a conclusion similar to that reported by Jaksch, Guttmann, and others, viz., that, though thallin is an active antipyretic, its effects are of short duration, the temperature generally rising soon afterwards with a rigor. He does not expect, therefore, that it will be found of much use in medicine.

CORRESPONDENCE.

Sudden Blindness During Labor.

EDS. MED. AND SURG. REPORTER:

At midnight of March 20th, I was called to attend the accouchement of Mrs. H., primiparæ. Found matters progressing satisfactorily—vertex presentation—patient very nervous, and disposed to think that *no* one had ever surmounted the difficulties of the ordeal through which she was about to pass. Chief nurse (her mother) disposed to encourage this idea. At this visit I made careful inquiries concerning the state of bowels and bladder, which were answered to my satisfaction. Pains, however, seemed to be flagging and inefficient, and learning that sleep had been broken and insufficient for the previous 48 hours I administered a draught containing chloral hydrate, with the assurance that, after a few hours of repose, the labor would go on with increased activity, and went back to my office for a nap. On returning to the house after an interval of five or six hours, was told that she had had a nice sleep, and found the pains coming on with vigor and frequency. The head was now well down on the perineum, and each throe was accompanied with some of the lustiest shrieks it has ever been my lot to hear. Now comes the curious occurrence which is my excuse for this communication. *Suddenly*, and while the poor suffering one was exerting to the utmost her expulsive powers, and while I was encouraging her to hope that each effort might be the last (so near was the child to the threshold of existence), she became blind, *totally* and *instantly*. She inquired why her husband (who sat by her side on the bed) had left her, and also complained of the absence of her mother. Both assured her of their presence, which she then verified by touch, but exclaimed, "I cannot see." By this time it was broad daylight, the shutters wide open, but she did not appreciate the faintest *glimmer* of light. I examined her eyes, but there was no effect produced on the pupils by passing a strong light before them. They were moderately dilated.

To make a long story short, the labor was terminated in half an hour, placenta at once removed by Crede's method, the patient made comfortable, and I left the new-made father bragging about what a nice girl he had. For two days this lady remained in total darkness—could not distinguish a *glimmer* of light. On the third day a hazy luminousness was perceptible, the following one she

could tell where the windows were, and on the next her sight was *completely* restored. She had not suffered from any degree of dropsy at any time. The kidneys acted freely, there was nothing approaching to a spasm, no sparks or flashes of light before her eyes—in short, not a single bad symptom. The urine, as soon after delivery as was practicable, showed no albumen. What caused the the blindness?

D. E. Matteson, M. D.

Warsaw, N. Y.

Scarlatina in Utero.

Eds. Med. and Surg. Reporter:

Considering the rarity of the occurrence of scarlatina in utero, I think the history of the following case may be of interest to my professional brethren:

Mrs. A., aet. 32 years, of German descent, constitution and general health good, and having had scarlatina when younger, was delivered of a large male child February 15th, 1886, labor being normal and of short duration. During the two weeks preceding delivery she was in constant attendance upon her older child, three years of age, affected with the malignant type of scarlatina, and which died three days after her confinement. During the first week of the older child's illness she contracted a very sore throat characteristic of scarlatinal sequelæ with much hyperaemia and involvement of submaxillary glands.

Immediately after delivery, and upon examining the child, the characteristic rash of scarlatina was observed, which was well marked and general and clearly defined, and which ran a course of nine days; desquamation occurring from fifth day on, and as naturally and well marked in large and small flakes as in any older child. Temperature ran from 100° to 104°, which was highest on third day of life. Considerable nausea and diarrhœa were manifested on third and fourth days. No other symptoms excepting the characteristic rash, elevation of temperature, nausea, and diarrhœa, presented themselves. I present this case as one of some interest, and considering the circumstances surrounding the case, consult the opinions of the older members of the profession, and ask of them in behalf of their professional experience if it was not one of scarlatina in utero. The mother and child made a good recovery, with no untoward symptoms, considering the fact that she was confined in the same room where an older child sickened and died.

Wilson Saffin, M. D.

Carthage, Ohio.

News and Miscellany.

Insanity Among New England Farmers.

The vital statistics of the State of Maine show that there is a larger percentage of insanity in the farming class than in any other, and the publication of this fact has excited general surprise. The popular presumption is, that farming life, through its freedom from daily excitement and mental stress, its out-door life that favors vigorous bodily exercise, keen appetite, and sound digestion, ought to contribute a smaller per cent. of insane persons than city life, that includes so many restless brain-workers of all sorts.

The truth is, as a Vermont writer has said, that the average farmer of New England in the small towns, and also the farmer's wife and daughters, are not seldom as grievously overworked and as much subject to personal anxiety and nervous stress as the active workers of city life. To take a New England farm and make it pay, means toil—incessant toil—early and late. Physically, the farmer, and especially the farmer's wife, is often severely overworked, to the extent of a broken-down nervous system. The food of the farmer is no better, not always as healthful, as the food of mechanical city workers; and the fatigue, exposure, anxiety, and overwork of the average farmer are more than are ordinarily encountered by the city worker of the same intelligence. Give a farmer time to stop from his toil, and he is not without plenty of means of diversion for his tired body and mind. He can fish, he can hunt, he can boat and sail, if he can find time; but few farmers do find time; and, if they drop under their load, it is because, all things considered, they carry a more galling burden of bodily toil and mental anxiety than they are accredited with by those philosophers in the city who view the farm and farm-life through a glass of champagne. If anybody doubts that farmers have to work hard to get ahead, let him look at the number of broken-down, dyspeptic farmers' wives, barely turned of forty, that you can see at State and county fairs. The farmer cannot hide his land or his stock—it is inevitably taxed; and it is a smart, industrious, sober, energetic farmer that can make his farm pay six per cent. in New England. Hundreds of sturdy farmers in Vermont make less than this of their farms; and too many of them are tortured to death by the effort to pay for a farm they have bought, with a mortgage attached. If it be true

that the farming class contributes largely to the insane, it is not because they are brooders over the little, mean, local woes of life; it is because, as a class, they work very hard, both men and women; because they have to carry more anxieties and troubles, with less time for relaxation, than the city worker of the same grade of intelligence.

Nature of the Flavoring Principles of Brandy.

M. Ordonneau has lately made some investigations concerning the cause of the peculiar odor of brandy made from wine. That of brandy prepared from other materials, such as maize, beet, and potatoes, is characterized by what is known to French experts as the "odeur de trois-six," which is not present in wine brandy. The odor has been traced by M. Ordonneau to the presence of isobutylic alcohol. In genuine cognac brandy the predominating flavor is due to the presence of normal butylic alcohol, which is present to the extent of 218.60 grams per hectolitre. The production of this alcohol appears to be due to the presence of *Saccharomyces ellipsoideus* in the grape-juice, since it can be developed from the ordinary refinery liquid by fermenting it with the sediment of wine. The isobutylic alcohol, on the other hand, appears to be a secondary product of the fermentation with beer yeast. It might therefore be possible in future to obtain brandy of good flavor by fermenting malt liquor with the *Saccharomyces ellipsoideus*. The other flavoring product to which brandy owes its peculiar bouquet appears to be a terpene boiling at 178° C., the products of the oxidation of which characterize old brandy. The author gives an analysis of cognac brandy, from which it appears that amylic and normal propylic alcohol and acetic ether form the principal ingredients, besides ethylic alcohol, although propionic, butyric, caproic, and œnanthic ethers, pyridine, and probably collidine, are present in minute quantities.

Cremation in France.

Decorative artists and sculptors are preparing to adapt themselves to the crematory movement, which has now in its favor a vote of the Municipal Council adopting the plan of a mortuary furnace, and granting a site in Père la Chaise, where it will soon be in operation. The expense of cremation is not, it is settled, to exceed fifteen francs. The municipality will, at a future sitting, vote the construction of a sort of lay temple, where families will be allowed to keep urns or other funereal vessels containing the ashes of dead relatives. This will not necessarily do away with any religious ceremony short of that of consigning the dead to consecrated ground; but as M. Koechlin Schwartz says, there is no reason why urns may not be consecrated, or why Protestants, Catholics, Jews, and Free Thinkers may not subscribe to build a vast mausoleum, in which the ashes of thousands could be deposited in beautiful vessels without injury to the living. It is probable that, cremation being now legal in such an art-centre as Paris, new and beautiful forms of artistic decoration will grow out of it. The time required for the combustion of an adult at Père la Chaise will be two hours.

Women Physicians Abroad.

The *Journal de Geneve* lately announced that among the 361 students in the University of Berne there are twenty women pursuing the regular course for the degree of Doctor of Medicine. This university has just conferred the degree of Ph. D. upon Mlle. Lina Berger, of the Grand Duchy of Baden, who passed an exceedingly brilliant examination. Two other ladies, one an American and the other an Austrian, took the degree of M. D. at the same time. But even in places where we least expect it are the women slowly gaining in honor and power. The University of Helsingford in Finland, for example, has conferred the degree of M. D., after a very rigid examination, upon Mlle. Heykel. This is the first Finland woman so honored, and the occasion was duly noted. A grand ovation was given to the graduate by her fellow-students, who at the same time opened a subscription among the people of Helsingford for a fund to establish a scholarship in the University for young Finnish women who desire to become physicians or surgeons. The "Rosine Heykel" fund thus far is in a flourishing condition.

A Chemical Garden.

The *Canadian Journal* tells us that a chemical garden is made as follows: Place a quantity of sand in a wide-mouthed bottle (or better, a half-gallon fish-globe) to the depth of two or three inches; in this layer of sand, slightly imbed a few pieces of sulphate of copper, sulphate of aluminium, and sulphate of iron; pour over the whole a solution of silicate of soda (commercial water-glass) 1 part and water 3 parts, care being taken not

to disarrange the chemicals in pouring in the solution. Upon standing a week or so, a dense growth of the silicate of the various bases used will be seen in various colors. Now displace the solution of the silicate of soda with clear water, by conveying a small stream of water through a small rubber tube (such as a nursing bottle tubing) into the vessel, which will gradually displace the silicate of soda solution. Care must be taken not to disarrange or break down the growth, with the stream of water. When successful, this produces a very beautiful scene.

Official List of Changes

OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE UNITED STATES MARINE HOSPITAL SERVICE, FOR THE THREE WEEKS ENDED APRIL 17, 1886.

Wyman, Walter, surgeon. To represent the Service at the meeting of the American Medical Association, at St. Louis, Mo., April 12, 1886.

Sawtelle, H. W., surgeon. Detailed as chairman of Board for physical examination of officers of the Revenue Marine Service, April 15, 1886.

Urquhart, F. M., passed assistant surgeon. Relieved from duty at Norfolk, Va., May 1, 1886; to assume charge of Cape Charles Quarantine, April 16, 1886.

Yemans, H. W., passed assistant surgeon. Detailed as recorder of Board for physical examination of officers of the Revenue Marine Service, April 15, 1886.

Heath, F. C., assistant surgeon. Appointed an assistant surgeon, April 16, 1886; assigned to duty at Chicago, Ills., April 16, 1886.

Suicides in Great Cities.

It appears from recent statistics on this subject that Paris occupies a very unenviable position. The ratio of suicide for every million inhabitants averages yearly 402, while in Naples it is only 34. The French capital is thus the saddest as well as gayest city in Europe. The ratio for other cities is as follows: Stockholm 354 (this high average is quite unaccountable in the northern city, where the pressure of life is not great); Copenhagen 302, Vienna 287, Brussels 271, Dresden 240, St. Petersburg 206, Florence 180, Berlin 170, New York 144, Genoa 135, London 87, and Rome 74. London thus occupies a very advantageous position in the list. With regard to New York, it is said that the majority of the suicides of that city are German.

Micro-organisms and Magnetism.

M. Dubois has sought to ascertain the influence of magnetism on the development of microbes. After placing two powerful magnets in a certain position, he arranged a set of capsules containing artificial cultivations in a circle between the magnets. After careful observation, he was able to prove that microbes, under these circumstances, developed from northeast to southwest. The micro-organisms developed in a capsule situated in the centre exactly between the two magnets, remained rounded in the direction of the axis of the resultant of the two forces, represented by two lines crossing each other in the direction of northeast to southwest, and southwest to northeast.

Association of American Medical Editors.

The annual meeting of the Association of American Medical Editors will be held in St. Louis, May 3, 1886. The programme for the occasion has not yet been announced, but will embrace an address by the President, papers by well known authors, and perhaps a banquet.

Items.

—At Prof. Parvin's clinic was a woman who had borne *eighteen children* at full term. She was accompanied by her sister, who had borne *sixteen*.

—Elijah Lane is the tallest man in the State of New Hampshire. Mr. Lane is from Keene, and is 6 feet eight inches in height, and weighs 210 pounds.

—By the terms of Dr. Flint's will, his medical library is given to the Academy of Medicine, with the exception of such books as the family may wish to retain.

—Daniel Alspach, an aged and well-known undertaker of Orwigsburg, Pa., contracted blood-poisoning while laying out a corpse recently, which caused his death.

—One man advertised for a clerk and thirty-five responded to his call; another man advertised for five carpenters and he can't get one. This proves beyond a doubt that it does pay to learn a trade after all.

—The United States Consul General at Rome has telegraphed the Secretary of State that there were sixteen deaths from cholera at Brindisi from April 8th to the 16th inst.

—Dr. William Hunt denies that *Othello* smothered *Desdemona*, and insists that she died from "a fracture of the cricoid cartilage of the larynx." On the whole, it is perhaps

unfortunate that there wasn't a post-mortem in the case.

—There is evidently a decline in the consumption of alcoholic liquors in this country at the present time. It is shown by the decrease of the internal revenue receipts last year, amounting to $9,000,000.

—The Supreme Sanitatsrath of Vienna, having submitted nickel and nickel-plated cooking utensils to a careful chemical examination, has decided that their use, from a sanitary point of view, is not free from serious objection.

—The Archduke Charles Theodore of Bavaria, who practices medicine, has obtained permission from M. Pasteur to be present at the inoculations in the laboratory of Rue d'Ulm. The Archduchess, who helps her husband in his professional labors, will accompany him as an assistant.

—Acute inflammation and enlargement of the prostate is much relieved by the continued application of hot water to the perineum, and its injection into the rectum, giving directions for its retention. The pain often subsides in a very short time, and micturition becomes easier.

—The Academia Medica di Roma, on Sunday, March 28, Professor Guido Baccelli presiding, held an animated discussion on M. Pasteur's method in hydrophobia. Opinion as to its efficacy was much divided, and the discussion was adjourned till April 4.

—The meeting of the American medical editors for 1886 will occur in St. Louis, on Monday, May 3, the day preceding the meeting of the American Medical Association. The following are the present officers: Dr. H. O. Walker, President; Dr. F. L. Sim, Vice-President; and Dr. F. E. Daniel, Secretary.

—Dr. Schatz reports a case (*Centralb. für Gynak.*) of a young woman from whom he removed the whole of the left ovary for a cystic tumor; he also removed part of the right ovary, which had undergone cystic degeneration. The patient menstruated regularly, subsequently married, and in May, 1886, was delivered of a daughter at full term.

—Concerning a case of *diabetes* with gangrene of one finger, Prof. Bartholow said: Withdraw all starchy and saccharine food from diet; instead, use acid fruits and vegetables; if patient can stand it, skimmed milk is the best diet; certain mineral waters are useful, as the alkaline waters of Michigan and the Bethesda, of Wisconsin; large quantities are necessary, especially good in fat subjects; ammonium carbonate and sodium phosphate, the chloride of gold and sodium, and cod-liver oil, likewise serve a useful purpose.

—There are now enrolled, as members of the night medical service of Paris, 608 physicians and 356 midwives, serving from 10 p. m. to 7 a. m. During the year 1885, 7,494 calls were received from a population of 2,226,000 persons. Of these calls, 52 per cent. were to attend women, 32 per cent. to attend men, and 16 per cent. to attend children.

OBITUARY NOTICE.

Professor A. Bouchardat.

This veteran pharmacist and chemist died on April 7, at the age of eighty, at his residence in Paris. Appolinaire Bouchardat was born in 1806, at Isle-sur-Serein (Yonne), in Burgundy. He embraced the pharmaceutical profession, and came to Paris when quite a young man. He became *agrégé* in 1834, and was first pharmacist-in-chief to the St. Antoine Hospital, and then to the Hôtel-Dieu, where he remained from 1834 to 1855. At that time he resigned, to devote his time to scientific pursuits. In 1852 he obtained, by competition, the chair of physics and organic chemistry at the College of Pharmacy. He became, in 1850, a member of the Academy of Medicine, and was at his death a Commander of the Legion of Honor. His scientific works are very numerous, and some quite important. The subjects investigated were the following: the grape-vine, wine, milk, diabetes and glycosury digestion, hygiene, potable waters, chloroform, and many others. He published the "Annuaire de Thérapeutique, Matière Médicale, Pharmacie et Toxicologie," from 1841 to 1885, and the "Formulaire Magistral," which has had thus far twenty-five editions. Of late years he has had for these publications the collaboration of his eldest son, Jean, a surgeon-major of the first class. It was not Bouchardat who founded the *Répertoire de Pharmacie*, as is stated in a Paris pharmaceutical paper; it was Dr. Lartigue, who edited it from 1844 to 1847, when the deceased took the chair, which he occupied until 1872. Professor Bouchardat was almost unknown to the present generation of pharmaceutical students, but he was beloved by those of his time for his kindness and benevolence. His younger son, Gustave, is Professor of Hydrology and Mineralogy at the School of Pharmacy.